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GREAT LAKES ARCHAEOLOGICAL RESEARCH CENTER, INC.

Reports of Investigation No. 151

ARCHAEOLOGICAL INVESTIGATIONS, NAVIGATION POOL 11, UPPER MISSISSIPPI RIVER BASIN

VOLUME II: DATA FILE

WAUWATOSA, WISCONSIN

INTRODUCTION:

Volume III consists of supplemental data collected or compiled relative to archaeological investigations in Navigation Pool 11, Upper Mississippi River basin. Some of the information, particularly the names and addresses of informants should be respected with confidentiality. While all of those individuals with whom we had discussions were willing to provide information, many expressed reservations regarding wholesale dissemination of information. The major reservation was in regard to divulgence of property localities where artifacts might be found. Staff of Great Lakes Archaeological Research Center, Inc. assured all informants that information would be released only to those with professional research and management needs. Appendices are organized in the following order:

APPENDIX

A. Scope of Work.
B. Technical Proposal.
C. Data Curation-lot chick lists.
D. Project correspondence.
E. Crew lists by task and associated man-hours.

APPENDIX A

Scope of Work

MANAGEMENT SUMMARY

This report entitled "Archaeological Investigations, Navigation Pool 11, Upper Mississippi River Basin" was prepared by the Rock Island District, U.S. Army Corps of Engineers under the provisions of Contract No. DACW25-84-C-0014. In part, the investigations fulfill Rock Island District obligations mandated by the National Environmental Policy Act of 1969 (P.L. 91-190), National Historic Preservation Act of 1966 (P.L. 89-665), as amended, Protection and Enhancement of the Cultural Environment (E.O. 11593), Advisory Council's Procedures for the Protection of Historic and Cultural Properties (36 CFR Part 800), Preservation of Historic and Archaeological Data 1974 (P.L. 93-291), and Corps of Engineers Identification and Evaluation of Cultural Resources (E.R. 1105-2-50).

The investigations were undertaken following submittal of a technical proposal in response to a request for proposals. The major work elements of the contract were: (1) a comprehensive literature search with oral interviews; (2) a cultural resources synthesis/overview; (3) preliminary geomorphic modeling; (4) a sample field survey; (5) an intensive survey at selected recreation areas; and (6) an evaluation of the cultural resources in Pool 11 in relation to erosion problems.

The level of investigations was formulated within an "identification" rather than an "evaluation" phase. Thus, archaeological and historic sites were not subjected to evaluation in terms of the criteria for eligibility for inclusion in The National Register of Historic Places. The intent was to provide a sound baseline study to assist in the future management of potentially significant archaeological and historic resources.

Combined methods of auger and coring investigations, test excavations, cut-bank surveys, archives and literature search, remote sensing, and historic mapping procedures have been applied to the development of a preliminary model of landscape evolution. The model addresses the nature, extent, and distribution of buried habitable surfaces in the Navigation Pool. Emphases are placed on the contexts in which sites are known to occur and where they can be expected to occur. In addition, certain limitations of the study are made explicit and recommendations for the resolution of these limitations are presented.

PART I - Section C, Description/Specification

I. OBJECTIVE

1.1 The following described professional services contract requires a scientific cultural resources investigation for Corps of Engineers owned land in navigation Pool 11. The major work elements under this solicitation are: (1) a comprehensive literature search with oral interviews, (2) a cultural resources synthesis/overview, (3) preliminary geomorphological modelling, (4) a sample field survey, (5) an intensive survey at selected recreation areas, and (6) an evaluation of the cultural resources in Pool 11 in relation to erosion problems. A summary section also will be required discussing research potentials and management objectives based upon the results of Items 1 through 6 above. Cultural resources, as used in this solicitation, include archeological, architectural, and historical properties. Site location, cultural affiliation, and geomorphological models developed under this contract will be based upon the articulation of the updated synthesis/overview with new data collected during fieldwork.

1.2 Within the framework referenced in 1.1 above, the Contractor shall perform 100 percent Intensive Surveys at the Corps of Engineers recreation areas (owned and leased) described in Section 2.3 to insure adequate consideration of cultural resources during recreational development planning. This work shall be a supplement to the pool-wide survey.

1.3 This action is in accordance with the National Historic Preservation Act of 1966 (as amended), the Archaeological and Historic Preservation Act of 1974, Executive Order 11593, and Title 36 of the Code of Federal Regulations (CFR), Parts 60-66 and 800, as appropriate. These guidances require that Rock Island District identify cultural resources under our jurisdiction so that they can be evaluated in terms of National Register significance. This solicitation is part of this process; however, offerors are reminded that this work falls under the identification phase. Except for obviously significant sites, previously listed sites, or sites for which sufficient information is already available, the Contractor shall not be responsible for addressing issues of National Register significance. It is anticipated that this process will occur in a future study effort based, in part, upon the results of the study solicited at this time.

II. PROJECT BACKGROUND

2.1 Pool 11 is part of the Mississippi River 9-Foot Navigation Project. The pool extends from Dubuque, Iowa, northwesterly 32.1 river miles to Guttenberg,

PART I - Section C, Description/Specification (Continued)

Iowa. It is formed by Lock and Dam 11, located at river mile 583.0, just north of Dubuque. The dam was placed into operation on 14 September 1937. The study of the Lock and Dam complexes (11 and 10) at either end of the pool is not part of this procurement. A District-wide study of the navigation system is being considered for a separate action. Discussion of the effects of Pool 11 on pre-lock and dam cultural deposits (and structures), however, is expected. The Contractor will have to be aware of Mississippi River channel migrations and how these affected the ways in which the landscape was utilized. Because much of the evidence of low terraces and other significant features is buried under the flat pool, mapping history is expected to delineate changes.

2.2 The pool controlling point, established at elevation 603.0 feet above mean sea level (flat pool), is located at the dam. This elevation was established in 1937 when the dam was placed into operation.

2.3 Within Pool 11, the Corps of Engineers owns approximately 3,981 acres of land above flat pool. There are 312 miles of shoreline in Pool 11, of which the Corps of Engineers owns about 170 miles. Of this, 105 miles are managed by the U.S. Fish and Wildlife Service in conjunction with 3,355 acres of land (of the 3,981). Therefore, the Contractor will be required to coordinate all field activities with the appropriate U.S. Fish and Wildlife Service office prior to doing any fieldwork. Approximately 250 acres of land are in recreation areas as follows (also see Exhibit 1):

Mile		State	Acres	Status	Tract No.
589.4	Mud Lake Recreation Area	IA	57	Leased	FIA 41&45
590.8	Grant River Public Use Area	WI	19	COE	FW 52-54
610.7	Muddy Creek Public Use Area	WI	36	Leased	FW 260
607.3	Furnace Branch Public Use Area	WI	20	Future	FW 262
601.4	Bertom Lake Launching Area	WI	4	COE	FW 218
596.7	Lynn Hollow Launching Area	WI	4	Leased	FW 200
598.4	McCartney Launching Area	WI	4	Leased	FW 208
591.9	Potosi Canal Recreation Area	WI	10	Leased	WIS 13
583.0	Jamestown Recreation Area	IL	10	Leased	A 3&6
614.4	Guttenberg Public Use Area	IA	28	Future	FIA 122
613.7	Schleichers Commercial Rec. Area	WI	4	Leased	FW 274
607.8	Unnamed Area at Turkey Creek	IA	15	Future	FIA 102
599.8	Anthony's Resort (riverward of)	IA	3	Future	FIA 66
585.7	Unnamed Area near John Deere Plant	IA	20	Future	FIA 9, 16, 84, & 810
612.3	Wolfe Creek Commercial Rec. Area	IA	1	Future	FIA 109-111

Note that the Grant River Public Use Area will not be investigated under this contract. Data recovery for site 47-GT-24 within this public use area is planned under a separate contract. It is recommended that the successful Offeror remain appraised of this work as it will be proceeding concurrently with this procurement and because information recovered from this site (Osceola Site, Old Copper Culture and Woodland) will certainly have application to the synthesis/overview for Pool 11. Prospective Offerors should recognize that the acreage figures

PART I - Section C, Description/Specification (Continued)

provided above may be substantially less due to inundation; however, the figures will not increase. In some cases, only portions of the tracts are actually designated for recreational use. Reference the attached map (Exhibit 1) for general locations for these areas. The successful Contractor will be provided a set of detailed tract maps for their use. Finally, note that the abandoned town of Peru, Iowa, falls partially within the tract at river mile 607.8 near the John Deere Plant. Historical archeology techniques will be required here.

2.4 Prospective Offerors are advised to consider the results of similar investigations conducted in Pools 10, 12, and 16. The Pool 10 work is currently being done by the Great Lakes Archeological Research Center, Waukesha, Wisconsin, (GLARC) under the direction of Dr. David F. Overstreet. Dr. Overstreet has completed the fieldwork phase for the St. Paul District, Corps of Engineers, and is now in the analysis phase. The results of the Pool 12 survey are presented in the report entitled Preliminary Investigations, Archeology and Sediment Geomorphology, Navigation Pool 12, Upper Mississippi River (Boszhardt and Overstreet 1981) which also was done by GLARC. A second report by GLARC entitled Intensive Survey and Testing at 11-Jd-126, Jo Daviess County, Illinois (Overstreet 1982) has application to this project. This site contained five distinct Woodland occupations and revealed information about the nature of buried sites in the flood plain. A third example of a pool survey is the report entitled, Assessment of Selected Areas in Navigation Pool 16, Mississippi River (Barnhardt et al. 1981) prepared for Rock Island District by Illinois State University. The results of the Pool 12 and 16 surveys are available in the Wisconsin Archeologist (64: 1 & 2: March-June 1983). Prospective Contractors are advised to use this publication as the District does not have enough copies of the reports to send out for proposal development. The forward to the Wisconsin Archeologist volume contains a forward by Mr. Roy Eichhorn, formerly with Rock Island District, describing the project histories and theoretical underpinnings of the surveys. The hypotheses listed on page 9 of this RFP should be considered when developing proposals.

III. PROPOSALS

3.1 The Contractor shall conduct this investigation in a manner that insures the greatest contribution to an understanding of Midwestern prehistory and history. In an effort to insure this, prospective principal investigators shall submit a technical research proposal and a separate cost proposal to the Contracting Officer for evaluation. The technical proposal shall include sufficient discussion to fulfill the Scope of Work and how these needs will be met. Key personnel will be identified and manpower efforts (by hours) shall be included but without costs. The cost proposal will be a detailed, itemized quotation for personnel, goods, and services required to accomplish the technical proposal. Overhead and wage rate figures shall be clearly presented, as well as any costs for equipment, transportation, per diems, lodging, and consultant services. The cost proposal shall be sealed in a separate envelope to insure that the technical evaluation can be accomplished without prejudice prior to evaluating cost proposals.

PART I - Section C, Description/Specification (Continued)

3.2 Prospective Offerors must adhere to the minimum professional qualifications recently published in the Federal Register 48:190:44716-44742. For the most part, these guidelines are compatible with standards set forth by the Society of Professional Archeologists (SOPA) and standards recommended by the respective State Historic Preservation Officers. It is the responsibility of the Contractor to insure that the designated principal investigator(s) and key personnel are in compliance with this requirement and that their qualifications are clearly set forth by vita and/or other documents. The Contractor shall identify by name, the principal investigator and key personnel in the proposal and document experience in work of this type in the Midwest. The principal investigator must be able to document involvement in the project, and will be held responsible for the technical quality of the work.

3.3 Proposals will be evaluated as specified in PART IV - Section M. The technical evaluation team will evaluate the technical proposals first without prior knowledge or review of concurrently submitted price proposals. Therefore, it is in the best interest of the Offeror to include the data necessary to evaluate the merits of technical proposals, independent of cost considerations. Proposals must demonstrate that the Offeror is knowledgeable of previous work in the region, current research objectives, and state-of-the-art methodologies and techniques. Proposals that simply restate the Scope of Work or offer "canned" approaches may be judged technically inadequate. A clear, well written, well thought-out research design is far more effective than fancy packaging and pages of stock text on the Offeror's abilities.

3.4 Particular emphasis in proposal evaluation will be given to proposals offering a high quality product which will best identify and evaluate cultural resources in Pool 11 in accordance with local and regional research objectives and management concerns. Geomorphological considerations and respective State RP3's (Resource Protection Planning Process study units) also must be addressed.

3.5 Offerors should submit a comprehensive scheduling plan to document anticipated levels of effort.

3.6 Contract award will not necessarily be based upon low estimated price, but on the most advantageous combination of method, price, and schedule that best meets the Government's needs. This will be firm-fixed-price negotiated contract.

3.7 Offerors are invited in their proposals to suggest improvements on the Scope of Work so long as the minimum requirements are met. Any substantive changes will be dealt with during the negotiation (best and final) process for those within the competitive range. The objective is to obtain the maximum amount of useful data in the most cost efficient manner. Note that award may be made without negotiation if a competitive pool of proposals is received that can be awarded as is.

3.8 Laboratory procedures shall be described for special studies such as soils and C-14 analyses. Prospective Contractors shall include in proposals a discussion of the capabilities and facilities to adequately perform required laboratory analyses and for curation upon the completion of the project.

PART I - Section C, Description/Specification (Continued)

4.4 The Contractor shall include provisions for necessary professional level geomorphological studies to identify and define the sequence, depth, and extent of soils development. Geomorphic process and fluvial histories will be required. Of particular concern is the relationship between cultural resources and landforms. The question of what resources have been lost due to erosion and inundation must be addressed, as well as what kinds of resources remain for future management efforts. It is anticipated that geomorphological studies may identify surface and or subsurface surfaces and landforms which can be defined as contexts likely to contain cultural resources as was done for the downstream corridor at Saylorville Lake, Iowa (Benn and Bettis 1981; Benn and Harris 1983), and for Pools 10, 12, and 16 described in Section 2.4 above. Prospective contractors are advised to obtain soils and landform maps done by the Wisconsin, to avoid duplication of effort. Thus, the field efforts may be limited or refined based upon the sufficiency of the Geological Quadrangle Maps (1966). A set of these maps, copies, or maps with the relevant information transposed shall be provided with the draft and final reports.

4.5 In order to attain maximum cost effectiveness for any geomorphological fieldwork that will be performed, the Contractor shall make appropriate use of power machinery for test trenching, test pitting, and coring.

4.6 The Contractor shall generate and implement a field survey to confirm cultural resource locations cited in documents and to identify previously unrecorded sites that will require management decisions. The field sampling strategy will include a definition of the study area through the use of available mapping (including aerials), the description and display of project lands in terms of field coverage, and the description of geomorphological and environmental data pertinent to past cultural use. An evaluation of field sampling strategies will be presented, particularly in relation to geomorphological considerations, and cultural patterns to be examined such as settlement patterns, subsistence strategies, resource utilization, site burial, and problems with erosion. The explicit discussion of the rationale for sampling strategy selection shall include the consideration of ground cover, accessibility, overburden, time/money constraints, problems with inundation/water tables, expected resources, and existing mapping. Hence, constraints and research objectives will be articulated to develop a strong, realistic statement of research design. This will lead to amplification of field methods for surface collecting and any subsurface investigations proposed. If research units are delineated, the Contractor shall describe the plan for each unit and the reasons for unit development.

4.7 Note that in addition to the overall survey, that the Contractor shall investigate each of the recreation areas referenced in Section 2.3 with the exception of the Grant River Public Use Area. The purpose of this component is to identify and assess cultural resources that will have to be considered during recreational development and management planning. Limited subsurface testing is recommended, as appropriate, so that cultural resource issues can be resolved in a future action. Site limits, identification of components, and preliminary statements on research potential will be required.

4.8 Based upon Sections 4.1 through 4.7 above, the Contractor will refine the cultural resources synthesis/overview with predictive models for Pool 11 and the region identifying the following:

PART I - Section C, Description/Specification (Continued)

3.9 Remote sensing applications should be described if proposed, particularly in terms of the data sought and the efficiency of the application in relation to traditional collection procedures.

IV. SPECIFICATIONS

4.1 The Contractor shall conduct a comprehensive literature search (with oral interview) of sufficient quality to provide a complete inventory and assessment of prehistoric and historic properties on federally-owned lands for Pool 11. Sufficient data shall be synthesized from which to generate preliminary predictive models for site locations, site functions, and cultural affiliations applicable to current research and management objectives. Management objectives are related to Section 106 compliance, erosion monitoring, permitting, leasing, and recreational development. It is anticipated that the resulting synthesis, survey data, and geomorphological models will serve as a sound basis for guiding subsequent field efforts for Pool 11. Any predictive models generated should be explained in terms of sampling procedures, assumptions, and the data upon which the predictions are based. A draft of the results of the comprehensive literature search should be revised, as required, based upon the results of the fieldwork solicited under this RFP.

4.2 Data refinement is recommended for any previous work done for Pool 11 based upon the cultural resources synthesis/overview and new data generated under this contract.

4.3 The comprehensive literature search and records review should include, but not be limited to, the sources listed below:

a. Oral interviews shall be conducted with local collectors, property owners, former property owners, and State/local Historical Society members.

b. Written archival sources shall be utilized such as the National Register of Historic Places, State Landmark records, State site files, HABS/HAER materials, USGS maps, 19th/20th century plat maps, land holding records, and Rock Island District files. The District has Mississippi River Charts from 1881, Browns Survey maps from 1930, and hand-drawn plane table maps from 1938 to 1943. The successful Offeror shall be provided copies of these maps as well as tract maps for use.

c. Professional literature will be examined (national, regional, and local) for background information and site specific information.

d. Resources of the State Historic Preservation Officers (i.e. Dr. Adrian Anderson for Iowa, Mr. Richard Dexter for Wisconsin, and Mr. Fred Lafser for Missouri) and State Archaeologists (i.e. Dr. D. Anderson for Iowa) shall be investigated. State survey programs such as the Illinois Archaeological Survey at Urbana, Illinois, shall be utilized. The Contractor will be responsible for obtaining and completing any State site forms.

e. The results of the comprehensive literature search shall be documented in the draft and final reports by extensive narrative, reference, and an annotated bibliography.

PART I - Section C, Description/Specification (Continued)

a. What data exist, as well as what data gaps exist geographically, temporally, and as guidance for research topics which can be approached through the performance of this and future contracts?

b. What RP3 study needs can be addressed through the performance of this contract?

c. How will data discovered during this contract contribute to our understanding of cultural resources for Pool 11 and the region (descriptive and interpretive)?

d. What is the distribution of cultures in the Pool 11 area?

e. How do geomorphological and ecological data apply to cultural resource investigations for Pool 11?

4.9 The following information is to be obtained for each site identified under this contract: Site location defined in four quarter section descriptions and UTM coordinates; these will be plotted on USGS topographic maps separate from the report.

4.10 If possible, the following information is to be obtained for each site identified under this contract:

a. The horizontal and vertical extent of each site with sketch maps.

b. The number of cultural components at each site and the stratigraphic position of each component in relation to the geomorphological setting if known from existing documents.

c. The type or types of activities represented by data from the site if known from existing documents or discernable from survey data.

d. Contracting archeologists, institutions, or investigators that have studied Pool 11 generally and specific sites within it.

e. Date of work for each site.

f. Site number.

g. Location of collections.

h. The relationships between the site, environment, physical setting, surrounding sites, and preliminary models.

i. The current status of the sites in terms of burial, ground cover, disturbances, and previous work.

j. An assessment of research potential for sites with rationales, if possible, based upon survey data or previous investigation.

It is not expected that Items "a" through "j" will be fully addressed in every case.

PART I - Section C, Description/Specification (Continued)

4.11 An explicit research design will be required that provides the rationale, goals, and methods for this investigation including, but not limited to:

a. The scientific and anthropological reasons for pursuing the proposed investigation.

b. What the investigator realistically hopes to determine about past human activity including such topics as occupational sequences, settlement patterns, subsistence strategies, chronologies, trade and social networks, and geomorphological considerations.

c. What the investigator has learned concerning "b" above using the data actually generated under this contract.

d. The explicit manner in which data will be collected and analyzed, and how these relate to the research goals and results.

e. Geomorphic field strategies that were applied and their utility.

f. Descriptive analytic and interpretive techniques should be presented, including summaries of classification systems used.

g. Quantitative techniques used to interpret data shall be explained.

V. REPORT

5.1 The principal investigator shall be responsible for preparing a comprehensive technical report based upon the results of the work under Sections I through IV. A report format is attached as Exhibit 2 for guidance. A separate set of USGS topographic maps showing individual site locations and boundaries will be provided by the Contractor along with a set of Geologic Quadrangle Maps (1966) or a reasonable facsimile. Any sketch maps of individual sites will be included as an appendix. Basic data description, including provenience in metrics, will be provided for use both in support of the author's arguments and conclusions and, as a source of basic information that may find wider use by other cultural resource professionals. Drawings and photographs are also recommended. Individual site sheets shall be included in a separately bound appendix; these will be obtained from the State agency responsible for administering State-wide site files. The Contractor will conduct an evaluation of geomorphological changes as a result of the construction and operation of the 9-foot Channel Project. The Rock Island District will supply a set of maps indicating the pre- and post-lock and dam configuration. These changes will be documented on appropriate maps.

5.2 Six copies of the draft report shall be submitted to the Contracting Officer for review 110 days after work begins on the contract (20 days after award). Draft reports shall be complete when submitted, unless other arrangements are made with the Contracting Officer, no less than 30 days prior to the due date. Changes directed by the Contracting Officer based upon draft review shall be made prior to submission of a final report. In the event that major revisions

are required, the Contracting Officer may request, and the Contractor will supply, a revised draft report for review at no additional cost to the Government. In the event that a revised draft is required, it will be due 30 days after notice of the Contracting Officer. The final version will be due 30 days after the Contracting Officer approves the draft.

5.3 The draft review period may be as long as 60 days. The intervening time is necessary to obtain reviews from the State Historic Preservation Officers, the District, and the National Park Service (Interagency Archeological Services).

5.4 Any materials (documents, artifacts, or notes) collected under this contract shall be evaluated, analyzed, and referenced according to current professional standards for presentation in the report. These procedures must be specified in proposals. An inventory of these materials shall be supplied to the Contracting Officer with the final bill as they remain Government property and are subject to review or recall at any time.

5.5 The Contractor shall furnish the Contracting Officer with fifty (50) copies of the final document, including all photographs and appendixes. A master copy of the final report in reproduction format will be furnished to the Contracting Officer with the final bill.

5.6 The Contractor will prepare an informational report on this work suitable for presentation to the lay public. This report should focus on the general prehistory and history of the area, the work done under the contract, and what has been contributed to our understanding of the area. Appropriate photographs, maps, or drawings shall be included to illustrate the project. A set of 35mm color slides shall be provided to complement the text.

5.7 Prior to acceptance of the final reports by the Government, neither the Contractor nor their representatives shall release any information or materials of any nature obtained or prepared under contract without prior approval of the Contracting Officer. After acceptance of the final reports, their reproduction and use shall not be restricted by either party. Appendixes not intended for public release are identified in Exhibit 2.

VI. RECOMMENDATIONS

6.1 The Contractor shall make recommendations in the technical report for each site and Pool 11 as a whole based upon the kinds of data that are present, expected to be present, or absent. Data gaps will be discussed and statements on future research objectives will be provided.

VII. CURATION

7.1 Any artifacts or cultural materials collected and any notes, photographs, or other data generated during the performance of contract services shall be curated with the Principal Investigator for preservation upon the discretion of

the Rock Island District and the respective State Historic Preservation Officers. Successful Contractors outside of the States of Iowa, Illinois, or Wisconsin may be required to move these materials to an approved curation facility within one of the three States bordering Pool 11. All of these materials remain the property of the Government and shall be made available upon request by the District for interpretive programs, additional research purposes, or any other reason approved by Rock Island District. All data generated under this contract will be curated in one place. It is the Contractor's responsiblity to safeguard all of this material and to provide an inventory or catalogue system to facilitate access. Copies of any inventories shall be submitted to the Contracting Officer with the final bill.

VIII. COORDINATION

8.1 Continuous coordination will be maintained with the appropriate State Historic Preservation Officers, the Rock Island District staff archeologist, and the U.S. Fish and Wildlife Service. Evidence of this coordination will be documented in the draft and final reports.

8.2 Monthly Progress Reports shall be submitted to the Contracting Officer by the 10th day of each month. This report will indicate specific activities and accomplishments during the preceding month and show any scheduled tasks for the following month. These reports will be used by this District to keep abreast of contract progress and serve as a vehicle for identifying problems with performance of the contract or with significant cultural resources.

IX. SCHEDULE

9.1 The overall contract period is 200 days. The Contractor will have up to 20 days after award to initiate the contract work. A schedule is provided below for guidance:

Award	0 days
Startup	20 days
Literature Search/fieldwork	25 days*
Literature Search/analysis	60 days
Draft Review (draft due)	60 days
Final Report Submission	30 days

The item marked with an asterisk indicates working days; all other categories refer to calendar days. This information is provided to guide Offerors in proposal preparation. Prospective Offerors may alter the fieldwork and analysis days as appropriate to carry out their proposals as long as the overall contract period does not change. Earlier startup times are also acceptable.

PART I - Section C, Description/Specification (Continued)

X. GENERAL

10.1 Any arrangements for ingress or egress over non-Federal lands shall be the responsibility of the Contractor. The Contractor is responsible for obtaining permission from any landowners prior to trespass. The Contractor shall inform the U.S. Fish and Wildlife Service concerning what areas will be examined and what work will be done. The point of contact for this will be provided to the successful Offeror.

10.2 The Contractor will keep District staff informed as to where the work is being conducted and supply names of all field personnel. This contract will be managed by District Archeologist Charles R. Smith, Environmental Analysis Branch, Planning Division, Rock Island District, Corps of Engineers. The phone number is 309/788-6361, Extension 6349. The Contracting Officer's Representative shall be R. J. Fleischman. While routine informational matters will be handled by C. Smith, all bills or contracting matters should be sent in writing to R. Fleischman.

10.3 Payments shall be made through receipt of Contractor's billing invoices. Each payment request will be audited by District staff to insure that sufficient progress has been made in support of the bill. As a guideline, the payment schedule listed below shall be used. Recognizing that there is great variability in billing procedures, fractional amounts will be accepted; however, adherence to the schedule is preferred.

Completion of Documentary Work	20% of contract amount
Completion of Fieldwork	40% of contract amount
Completion of Analysis	60% of contract amount
Receipt of Acceptable Draft Report	70% of contract amount
Approval of Draft Report	80% of contract amount
Receipt of Final Reports	90% of contract amount
Receipt of Final Bill, Inventory Sheets, Reproduction Format Master	100% of contract amount

The Contracting Officer may approve payment for higher percentages than those shown in the above schedule if an appropriate amount of work can be identified as having been accomplished.

PART I - SECTION H, Special Provisions

1. CONTRACTING OFFICER's REPRESENTATIVE (COR). The Contracting Officer may appoint an individual to act as his representative for this contract. Such representative shall direct the technical effort being performed within the Scope of Work. This representative is not authorized to issue instructions which change the scope of technical requirements, the work to be performed, or the compensation or period of performance of the contract. Such changes, if any, shall be made only by the Contracting Officer. Written progress reports will be submitted to the Contracting Officer the 10th day of each month during analysis. Field conferences will be held as needed.

2. CONTRACTOR'S PROGRAM MANAGER. The Contractor shall designate a Program Manager who will be the Contractor's authorized supervisor for technical and administrative performance of all work performed hereunder. The Program Manager shall serve as liaison between the Contractor and the US Army Engineer District, Rock Island, under this contract.

3. TRAVEL. The Contractor shall use tourist class arrangements (or equal) for all travel to be performed under the contract. Travel in the United States required for performance of contract work will be made at the discretion of the Contractor. Travel outside the continental limits of the United States will not be performed.

4. INSURANCE. The following insurance must be maintained during the entire performance of this contract. This implements Clause 40, INSURANCE, of the contract General Provisions.

Workman's Compensation Insurance	As required by the State in which the work is performed
Employer's Liability Insurance	$100,000.00
Comprehensive General Liability Insurance	$300,000.00 B.I.
Comprehensive Automobile Liability Insurance	$100,000.00/$300,000.00 B.I. $10,000.00 PD

5. IDENTIFICATION OF RESTRICTED RIGHTS COMPUTER SOFTWARE (1977 APR). The offeror's attention is called to the requirement in the "RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE" clause that any restrictions on the Government concerning use or disclosure of computer software which was developed at private expense and is to be delivered under the contract must be set forth in an agreement made a part of the contract, either negotiated prior to award or included in a modification of the contract before such delivery. Therefore, the offeror is requested to identify in his proposal to the extent feasible any such computer software which was developed at private expense and upon the use of which he desires to negotiate restrictions, and to state the nature of the proposed restrictions. If no such computer software is identified, it will be assumed that all deliverable computer software will be subject to unlimited rights. (DAR 7-2003.76)

6. RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE (1981 MAY).

(a) Definitions.

(1) Technical Data means recorded information, regardless of form or

PROPOSAL TO CONDUCT CULTURAL RESOURCE INVESTIGATION,

POOL 11, MISSISSIPPI RIVER, IOWA, ILLINOIS, AND WISCONSIN

In response to: Solicitation No. DACW25-84-R-0014

US Army Engineer District, Rock Island
Clock Tower Building
Rock Island, IL 61201

Submitted By: Great Lakes Archaeological Research Center, Inc.
7509 Harwood Avenue
Wauwatosa, WI 53213

David F. Overstreet, Ph.D.
Principal Investigator

(Receipt of Amendment 1, DACW25-R-84-0014 is hereby acknowledged)

INTRODUCTION:

This proposal is submitted in response to Solicitation No. DACW25-84-R-0014 to conduct cultural resources/geomorphological investigations at Navigation Pool 11, adjacent to Iowa, Illinois, and Wisconsin. The proposal is formulated to accomplish in a professional manner, six (6) primary objectives. These are defined as: (1) A comprehensive compilation of base data which will assist in development of the research design and implementation of subsequent field and laboratory work; (2) a data synthesis in narrative form which integrates and explicates the results of literature/archive search, field, and laboratory investigations, and, serves as a cultural resources overview of Navigation Pool 11; (3) the development of a preliminary predictive model of the evolution and expected distribution of Holocene landscapes in the pool; (4) intensive archaeological/historical survey at specified locations for future management practices which may impact cultural resources; and (5) an empirical demonstration of the effects of erosion on archaeological/historic sites located within the pool confines.

The proposal identifies, by task number, the efforts required to accomplish the objectives set forth in the Solicitation. The primary responsibility for task completions lies with the Principal Investigator, however, key personnel are identified for each task. Following the definition of each task, the total effort is integrated with the research design.

Task 1-Program Management:

The principal investigator will establish a management system for this project. Key personnel responsibilities identified in the following task designations will be transmitted to appropriate individuals in the study team.

The principal investigator will monitor task assignments by weekly review of daily lab and field logs which will constitute the primary record keeping functions for the course of this study. Summaries of these logs will be collated and integrated by the Principal Investigator and transmitted to the Contracting Officer or his/her representative to fulfill the responsibilities of monthly progress reports. This tracking system will provide for close communication with the project sponsors and allow the Principal Investigator to closely monitor the project schedule.

Administrative staff members will assist the principal investigator through the maintenance of employee time records, travel and equipment expenditures, payroll records, and other administrative responsibilities. Audit trails are established by an automated ledger system in accordance with contemporary standards. All of the responsibilities identified in Part I, Section H, Special Provisions are assigned to the corporation's fiscal officer, Ms. Nikki Wackman. One hundred *fifty man-hours* will be devoted to Project Management.

Task 2-Mapping History:

Dr. Ben Richasen Jr. will have responsibility for historical map production. Three base maps will be utilized to develop a post-1900 landform modification plat of Navigation Pool 11. The baseline map will be the projections made by the Mississippi River Commission during the late 1890's. Mapped at a scale of 1:20,000, the charts provide a detailed assessment of the pool prior to the establishment of navigation aids. These charts represent the best appraisal of open river conditions, provide great detail relative to sediments and vegetation, and include significant historical data. Original land survey plats (G.L.O.) were reviewed and rejected as inadequate for

documentation of land-form changes.

The second set of baseline maps to be employed are the W.N. Brown, Inc. charts compiled for the U.S. Engineer Office, Rock Island, IL under the direction of Major C.L. Hall. These maps portray the pool conditions immediately prior to construction of the locks and dams. Developed at a scale of 1:12000, the maps provide sufficient detail to document landform changes from the late 19th to mid-20th century. This is an important step as the effects of pre-lock and dam navigation improvements on the lands within the pool can be identified. Data from the Brown surveys will be supplemented by the Plane Table maps developed by the U.S. Army Corps of Engineers prior to land acquisition for construction of the locks and dams. These maps provide somewhat greater detail than the Brown Surveys as they employ a 1' contour interval and are drawn at a scale of 1:2400. Supplemental data will also be derived from aerial photographic records as deemed necessary by Dr. Richasen.

This task is viewed as a special adjunct to the archive/ literature search and has, in the past, provided important data for interpretations both in the field and in the lab. The historical maps will be photographically corrected to a common scale. Following this, mylar overlays will be inked to demonstrate both made and lost land during the 90-some year time span. Several contemporary base maps could be utilized, e.g., the U.S.G.S. quadrangles or Great II maps. Selection will be made following discussions with cultural resources specialists at the Rock Island District, U.S. Army Corps of Engineers.

An example of the overlays constructed for Navigation Pool 10 is depicted in Figure 1. Several applications were noted during the reconnaissance investigations in Pool 10. First, main channel islands had been classified as transitory features by geomorphologists (Church & Smith 1982). This contention was borne out by the mapping exercise. Islands not in existence on the 1893 MRC maps were noted in later maps. This provides a useful management tool. These recent landforms could be used for dredge disposal without concern for prehistoric or early historic sites as they were developed by geomorphic processes after the turn of the 20th century. As well, additional tracts of land could be removed from the pool for the field sample as recent landforms such as these could not possibly harbor prehistoric sites.

The historic mapping procedure also provided a useful interpretive device. Sites located during the recent survey that were associated with linear near-shore islands were demonstrated to have been cut off from mainland features after the construction of locks and dams. Thus, the present geomorphic and topographic contexts were meaningless. These sites were more effectively interpreted in view of the late 19th century topographic setting than in their present setting.

Finally, delineating the amount of lateral shoreline erosion is often useful in providing a preliminary evaluation of remaining archaeological contexts. In some cases, cultural materials were found at locations where more than 90% of the land mass had been removed by erosion. In other instances, very little erosion or deposition had taken place. This of course provided an impirical, documentable assessment of the effects of erosion on a given cultural resource. Such quantification is not possible without the detailed map overlays.

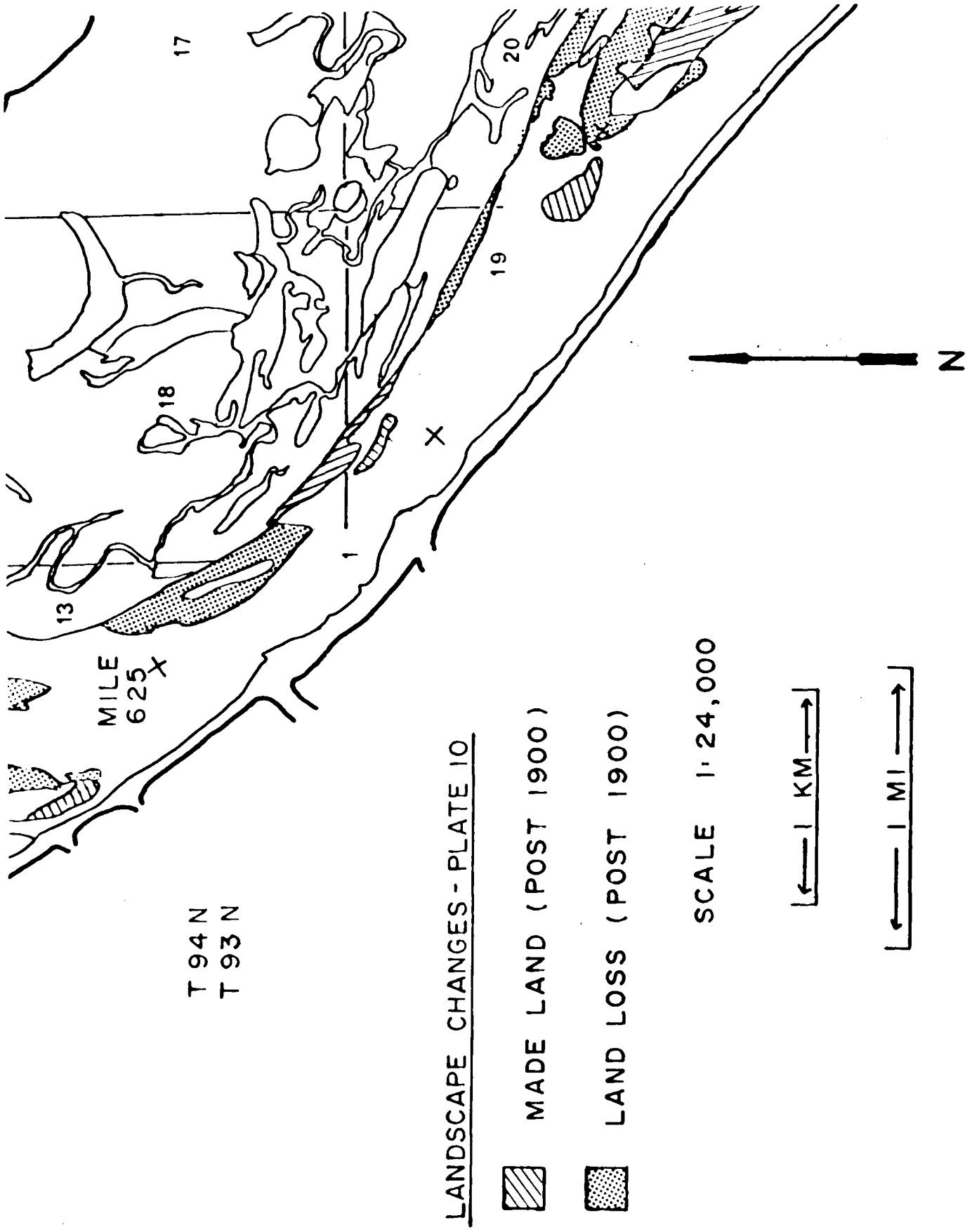


Figure 1: Excerpt of plate depicting post-1900 landform changes.

Dr. Richasen's necessary time allocations are as follows: 4.0 hrs., collect and review base maps; 8.0 hrs., rectify scales; 32.0 evaluation of data; 8.0 drafting; 16.0 consultation with study team; and 32.0 hrs. for report writing.

Task 3-Archives/Literature Search & Oral History:

Task 3 will incorporate the historical data from Task 2 and will focus on the following sources of cultural resources information.

Published Literature:

Regional and state journals detailing archaeological, historical, and architectural investigations will be scrutinized. Appropriate references will be annotated and compiled in bibliographic format.

Serial Files:

Site files maintained by the various state repositories will be reviewed. Existing site records in Illinois, Wisconsin, and Iowa have slightly varying formats. To resolve this sometimes troublesome phenomena, a data transformation will be applied so that all sites identified through both the literature/archives process and the field investigation will be recorded on the master form which appears as Figure 2. Historical sketch maps, plan views, or other appropriate information will be attached to these records as supplemental data. Summary sheets consistent, in so far as possible, with site information specified in Part I, 4.10, a-j, will also be appended to the site records.

Following discussions with cultural resources specialists at the Rock Island District to identify the preferred base maps, sites will be numbered and plotted on the base map. These will be keyed to the Map# identified on the record sheet for easy future reference.

Archives:

Unpublished literature and historical records will be reviewed at the State Historical Society of Wisconsin, the Iowa Historical Society, and the Illinois State Museum. Additional materials will be reviewed at the Office of the State Archaeologist of Iowa and Wisconsin. This information

Map #_____ State Codification #_____ County_____

Site Name:_____

Legal Description: Township & Range_____ Civil Township_____

Section Location: _____

_____

Present Owner: _____

Address: _____

Recorded By: (name & date) _____

_____

Geographic/Topographic setting: _____

_____

_____

Water Source: _____; Distance from site _____

Elevation: _____ Drainage System _____

Site Type: _____

Size: _____, Soil Type: _____

Cultural Affiliation (s): _____

_____

Chronology: _____

_____

Bibliographic references: _____

_____

Map References: _____

_____

Location of Collections: _____

_____

Figure 2: Common site record form.

will also be reviewed at the Illinois Department of Conservation Offices as Illinois does not presently have a legislatively mandated state archaeologist. Records will be sought from the Illinois Archaeological Survey, although it is unlikely that detailed information will be provided.

County museums and historical societies will be visited and their files reviewed for unpublished cultural resources information. Data retained at such repositories has, in our experience, been highly variable. However, this is an important step in identifying knowledgeable informants. Mr. Robert Fay will have the primary responsibility for the archives and literature search. Having recently completed a baseline literature and archives search for Navigation Pools 1-10 (Overstreet, Fay, and Mason 1982), Mr. Fay has already visited many of the identified repositories and has already established a sound working relationship with curators, local librarians, historians, collectors, and other informant sources. Building on his previous experiences in the region, Mr. Fay will follow a net-work procedure to expand the input of local informants.

A compilation of all repositories, institutions, and individuals will appear as an appendix to the literature and archives search. In addition, blank copies of the record format will be bound into the working copy of the final report so that future surveys may be integrated with the present compilation. Informants will be identified by an oral history record which includes a summary of the individual's experience, interest, level of knowledge of the project area, and appropriate contact data such as name, address, telephone number, and willingness to provide information.

Museum collections and those in the hands of private individuals will be evaluated. Photographic records of each collection will serve to document appropriate materials in public repositories and private collections. Provenience information will be recorded only if it can be established that such provienience is accurate to a degree to be useful to future investigators.

Data collection is the first element of the multi-phase literature and archives search. Once a comprehensive tabulation is compiled, an overview narrative of the cultural resources of Navigation Pool 11 will written. Major cultural-historical themes will be summarized and an encapsulation of previous research will be provided for each major theme. The narrative will focus on the thematic identification, e.g., Logging on the Mississippi, Bridging the River, Woodland archaeology on the Mississippi River Floodplain, Historic Clamming; our present knowledge of the theme including site-specific information; established research questions for each theme; and the major data gaps for each theme. Prior to final narrative preparation, close communication with Rock Island cultural resources specialists and the respective State Historic Preservation Officers in Illinois, Wisconsin, and Iowa will be implemented to evaluate the completeness of the identified themes.

These themes will overlap with those already identified by Henning (1982) in Iowa and Fay et al in Wisconsin. Illinois has not yet developed RP3 themes. In addition, the Iowa has published a draft but not a final Resource Protection Planning Process document. Wisconsin is currently in the process of developing such a draft, however, historical and prehistoric themes and study units have been reviewed with appropriate staff at the State Historical Society of Wisconsin. Until such themes and study units are clearly defined by the surrounding state organizations, it is virtually impossible to state the RP3 study needs that can be addressed through the performance of this contract.

This narrative will serve two major purposes. First, it will be revised as the public document, a popular narrative which identifies the broad framework within which the study is being conducted. Thus, the archive/literature summary will represent a major element of the popular document. The second major purpose of the narrative will be to serve as

a guide to the interpretation of data recovered during the field phase of these investigations. Field data will be analyzed in light of the previously identified study units, contemporary and past research questions, data gaps, and other limitations identified in the overview narrative. This will allow us to identify, for example, which kinds/ types of sites are under-represented in our sample, and, which are over-represented. The overview represents a document through which future investigations can adequately be evaluated. Mr. Fay will require 400 man-hours to compile the data and write the overview narrative.

Task 4-Preliminary Geomorphological Model:

Task 4 represents a review of extant literature, maps, boring logs, and other available reference materials from which a preliminary model of the Holocene sequence of development of the pool 11 floodplain can be constructed. This exercise will undertake to identify terrace remnants, channel features, fans, colluvial slopes, and other features that will provide for age estimates of exposed land surfaces.

The contemporary topography of the floodplain can be characterized as "ridge and swale." This configuration is assigned to the almost contant meandering of side channels that deposit ridges of lateral accretion. The buried topography, however, is very poorly known (Church & Smith 1982, Overstreet 1983). Recent research has dmonstrated that terrace margins are buried by as much as 3.0m of Holocene alluvium. As well, clay deposits on the terraces can be dated to approximately 9500 B.P. (Flock 1982, Boszhardt and Overstreet 1982). The extent of these terrace margins can be inferred from map and air-photo investigations.

Main channel environments are much less clearly known that the terrace margins. Data collected during geomorphological and archaeological investigations in pool 10 have demonstrated that archaeological sites lie buried as deeply as 15' below the present surface and that Holocene alluvium likely exceeds 50'. Main channel environments to be investigated during

subsequent field phases will be identified during Task 4.

The model formulation will function as a guide to verifying in the field: (1) the geomorphic and fluvial history of the pool environs; (2) the vertical and horizontal distribution of different aged alluvium as identified on contemporary geomogical survey maps; (3) the locations of Holocene/Pleistocene interfaces; (4) the correspondence of buried surfaces and archaeological deposits; and (5) the identification of a series of contexts in (on) which archaeological sites are likely to be encountered. Task 4 will also entail a brief reconnaissance of navigation pool 11. Joan Underwood and David F. Overstreet will have responsibilities for completion of Task 4. Ms. Underwood will require 40 hours to complete task 4 and Mr. Overstreet's efforts are also calculated at 40 hours, a task 4 total of 80 man-hours.

Task 5-Stage I Field Work:

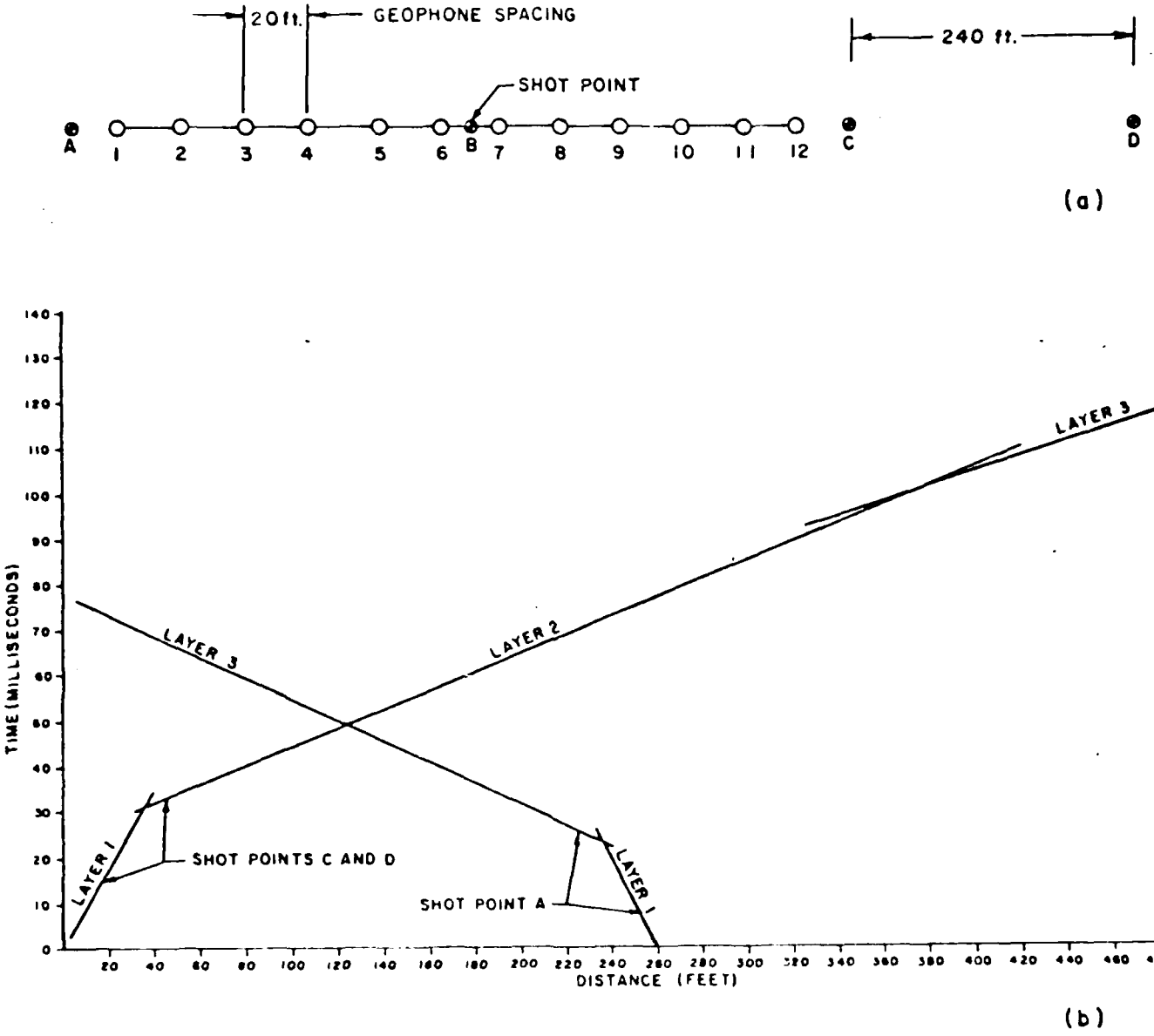
Task 5 has 3 phases: (1) Stage I reconnaissance survey; (2) Stage I remote sensing; and (3) Stage I analyses.

Stage I reconnaissance survey consists of cut-bank survey, verification and updating of reported sites from literature/archive search, and collection of geomorphic data. Crews will survey erosional surfaces to acquire a good appraisal of the pool culture history. Collection of diagnostic artifacts can be used to verify, and modify if necessary, the overview narrative. Previously reported sites in the pool will be field checked, recollected, photographed, and updated to meet current cultural resources management needs. Oakfield coring and bucket "Iswan" auger sampling will be conducted at appropriate site, i.e., those which exhibit multiple components or other features indicative of buried archaeological deposits. This will serve to identify the land surface contexts in which archaeological deposits can be expected.

Special mention needs to be made of hand tool coring investigations. Given the difficulties of access on the lowland floodplain, it is not feasible to use mechanized equipment. Even highly portable truck-mounted equipment such as a Gidding's auger can not effectively be brought into use on the floodplain. Given the logistics, it would not be cost-effective to use power equipment for test trenching, and test pitting. Even if the logistics were not a matter of concern, back-hoe trenching is inadequate to identify contexts of archaeological preservation that may lay 15 to 50 feet below the present surface (Overstreet 1983).

In pool 10, we have been able to identify buried archaeological components at depths of 14-15 feet below the surface with Oakfield tools and pipe augers. In addition, hand tools have proven effective for probing to determine the depth to which the contemporary floodplain has captured the terrace margins. On the main channel geomorphic features, hand tools are not sufficient to determine the depth of Holocene sediments. Here, remote sensing has proven to be the most effective technique to sample Holocene sediments. Preliminary remote sensing will be implemented as part of the Stage I Field work.

Stage I remote sensing will have several goals. First, through the use of seismic refraction and resistivity survey techniques, and in conjunction with hand tools for verification of near surface (15') phenomena, geomorphic history will be refined. Seismic refraction will be applied to measure depths of varying alluvial sediments in main channel environments. As indicated in Figure 3, the seismic refraction is used to measure sediment interfaces over a linear distance. The same data could be collected by conducting tight-interval, deep coring with various mechanized systems. The costs, including transportation of mechanized units to main channel environments, would be astronomical. More data at much less cost can be collected with remote sensing techniques.



(a) SHOOTING ARRAY SHOWING RELATIVE POSITIONS OF SHOTPOINTS AND GEOPHONES.

(b) TIME-DISTANCE CURVE OF McGREGOR LAKE SEISMIC DATA AS COLLECTED USING DEPICTED SHOOTING ARRAY (a). A 3-LAYERED EARTH IS SHOWN.

Figure 3: Seismic refraction data, McGregor Lake.

As seismic refraction is based on measuring the velocity of a shock-wave moving through sediments of different grain size, it is easy to record major contextual differences, i.e., silt, sand, gravel, and identify the interface features. In some instances, however, greater detail of sediment site may be desired. In this instance resistivity would be applied. Based on the resistance per unit length of a substance with uniform cross-section (specific resistance), resistivity has a long history of application in archaeological and geomorphological investigations.

Ground penetrating radar would be applied on a site-specific basis as it is not presently effective as a survey tool for large tracts. Our primary application is at sites where archaeological deposits are buried at several feet below the surface. The ground penetrating radar is used to map sub-surface topography, delineate anomalies, i.e., buried archaeological sites, isolated inhomogeneous sediments such as a sand lens in a silt matrix, or varying soil properties. Figure 4 depicts a radar profile confirmation of buried (cultural) shell middens at McGregor Lake in navigation pool 10. The boring log from pipe auger sampling is provided in Figure 5.

Remote sensing equipment, powered by a portable generator, is easily transported by boat or rubber raft to main channel islands, backwater lakes, abandoned channels, or anywhere else on the floodplain. Machine excavators or mechanized boring rigs could not possibly be used as cost-effectively as the seismic refraction, resistivity, and ground penetrating radar units. Finally, the portability provides an opportunity to apply a suite of remote sensing techniques at a single site. Verification of this data can only be as good as current boring data, compiled from construction projects and well logs. Because of this, there has been some reluctance to employing remote sensing technology. We would expect Rock Island District, U.S. Army Corps of Engineers personnel to inspect remote sampling techniques during the Stage I field survey.

APPENDIX B

Technical Proposal

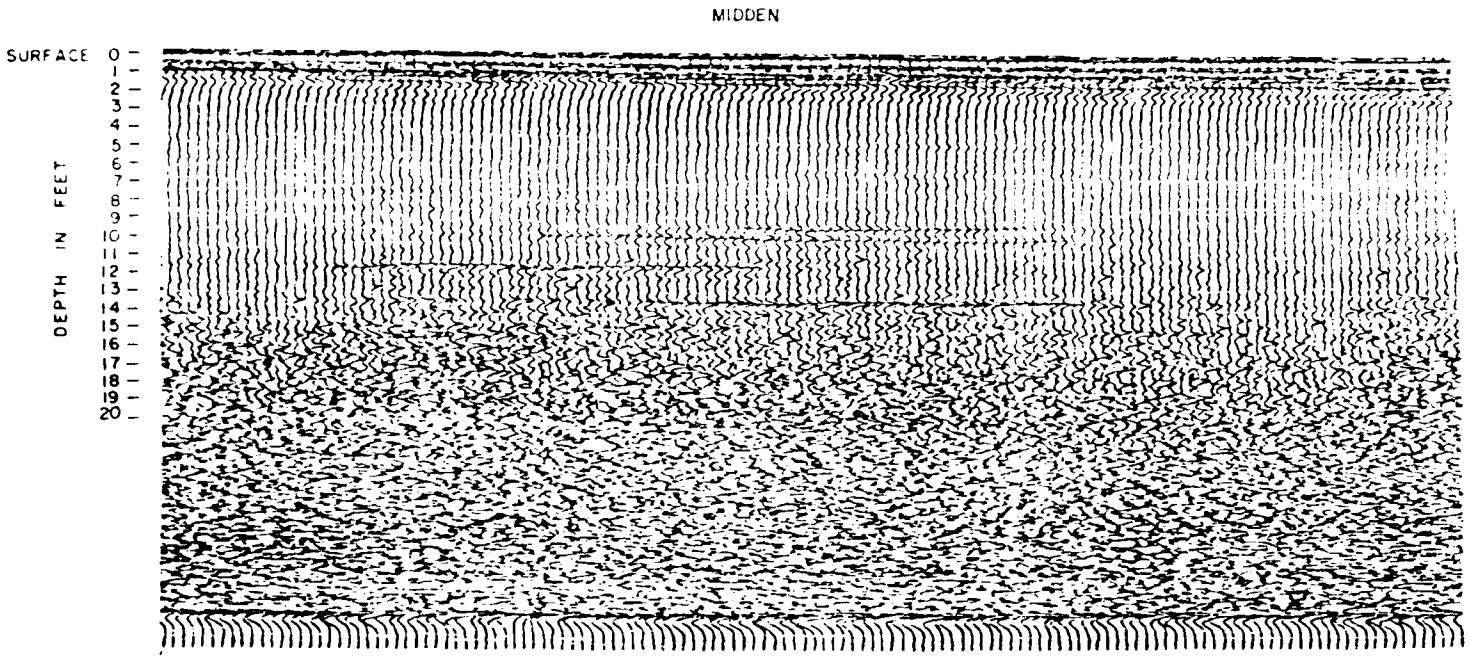


Figure 5: Sample radar profile from McGregor Lake, Pool 10.

Donohue Engineers & Architects 1984	REMOTE SENSING INVESTIGATIONS OF UPPER MISSISSIPPI RIVER, POOL 10, NEAR PRAIRIE DU CHIEN, WISCONSIN	FIGURE 19 ENHANCED RADAR WAVEFORMS FROM THE MIDDEN AREA AT McGREGOR LAKE, PARALLEL TO THE SHORELINE

ORING LOG
I.D. NO. 82-27:03
OCATION: McGregor Lake (west shore)

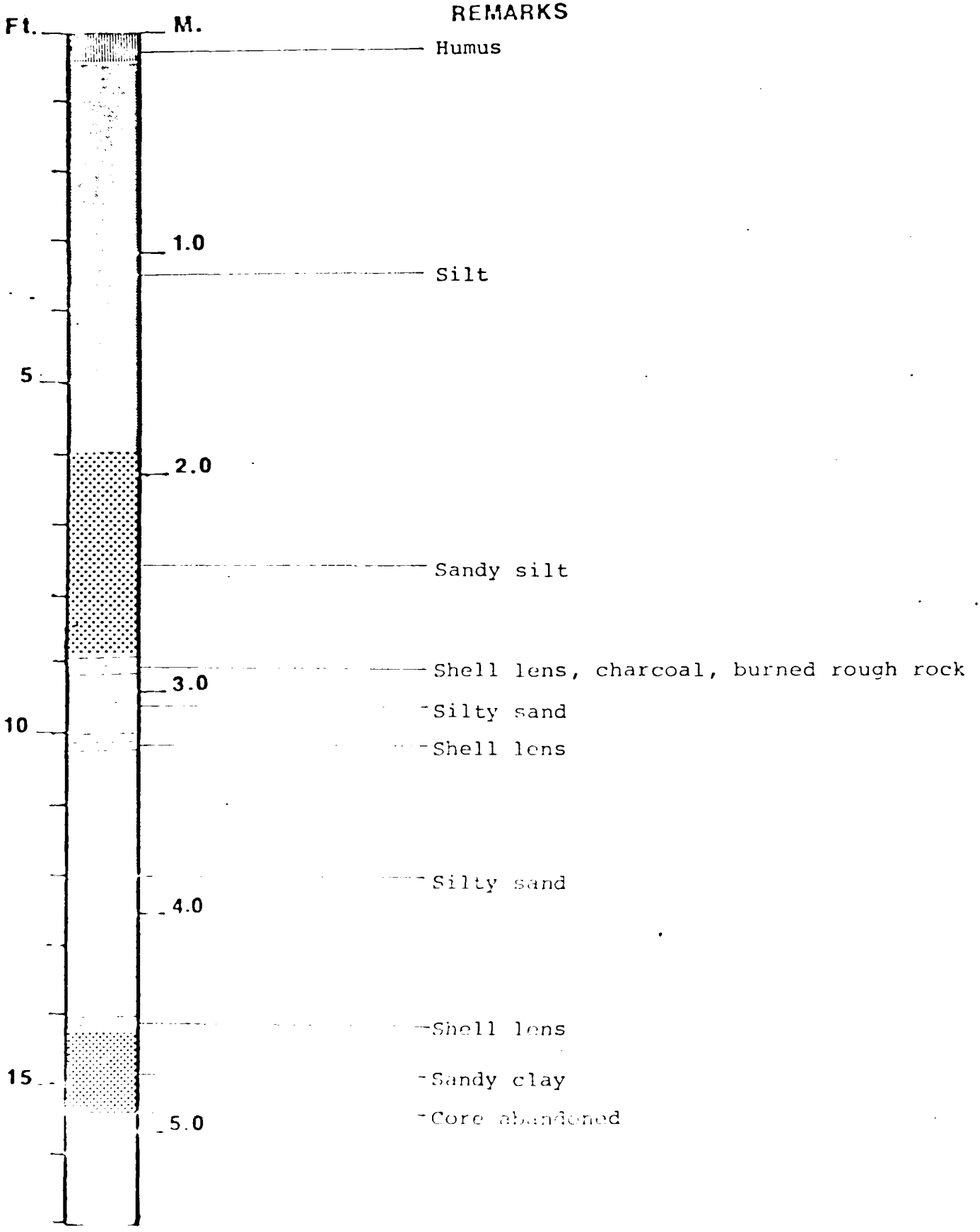


Figure 6: Hand core log, McGregor Lake, Pool 10.

The last element in the Stage I Field work has two facets. First, intensive survey will be conducted at the tracts noted in the request for proposals. Presence or absence of archaeological sites will be determined by combined surface collection, if possible, shovel probing, and deep coring (15') with Oakfield tools and augers. At the same time, preliminary analyses will be conducted to evaluate the Stage I field work data. Artifacts from cut-bank surveys will be cleaned, cataloged, and subjected to preliminary typological/functional/ continuous attribute analyses. Remote sensing data, recorded on strip charts and magnetic tape, will also be evaluated at this time. The results of these interim analytical techniques will be used to direct the Stage II field work. The Principal Investigator is scheduled for 160 man hours, Ms. Underwood for 80 man hours, and archaeological technicians for 300 man-hours. All technicians meet federal requirements for Crew Chief, GS 7/2.

Task 6-Stage II Field Work:

Task 6 represents a second stage sample. Information not adequately provided during the stage 1 sample will be sought. Additional remote sensing will be conducted based on the results of initial surveys. Buried landforms may have to be clarified, additional coring conducted, and limited test excavations conducted. If the latter is the case, excavation will be limited to not more than two locations. Further, the excavations will be no more expansive than a 2 x 2 meter square. Limited excavations were conducted to a depth of 3.0 m in navigation pool 10 to confirm a deeply buried archaeological component and to get a more specific appraisal of a buried Holocene/Pleistocene contact. Using handpumps (siphon type) and a sump, a 50 square centimeter block was controlled to a depth of 7 feet below the water table. This is quite time consuming as the entire matrix has to be water-screened to recover cultural materials from the saturated fine grained sediments. It did allow for the identification of preserved landsurfaces that had been inhabited during pre-woodland times.

Additional investigations, as deemed necessary, will be conducted at the sites of intensive survey where possible future impacts may occur. This will be dependent upon the results of the intensive survey carried out simultaneously with the preliminary

laboratory analyses. Gaps in the geomorphic history of the pool revealed by Stage I investigations will be addressed. It may be necessary to investigate additional geomorphic environments with both remote sensing and coring tools to provide additional data. Again, the specific applications cannot be cited at this time. The flexibility of a two-staged sampling program will allow us to accomodate some fluctuations in the pool levels. Approximately 40 man-hours are scheduled for the Principal Investigator, 40 hours for Ms. Underwood, and 80 archaeological technician hours.

Task 7-Analytical investigations report preparation:

The principal investigator will coordinate laboratory procedures and preparation of data for presentation in the draft report. As specific types of data are sought, our estimates of analytical expertise are on a sound basis. Additonal remote sensing data, as well as that garnered during the Stage I survey, will be evaluated by Ms. Underwood for preparation of the geomorphic and archaeological summaries. Artifact collections from cut-bank survey are often large, however, they are of limited utility. The assemblages are always redeposited on foreshores and thus have lost much of their signficance. They will be evaluated with particular attention to typologies for cross-dating of their geomorphic contexts as revealed in exposed profiles. Functional analyses and metrical data will be recorded for diagnostic artifacts. Interpreting site functions from mixed assemblages is risky. Nontheless, the assemblages can be used in a general sense to infer behaviors of the sites' past inhabitants.

Shellfish will be sampled where-ever erosional surfaces permit. As these sites are common in pool 10, though lesser known in pool 11, we anticipate that specialized analyses will be conducted on shell-fish remains. Naiad analyses can provide information regarding past habitat conditions, aquatic regimes, and other environmental features. No radiocarbon analyses will be conducted unless appropriate samples are recovered from excavated contexts.

Traditional archaeological analylytical procedures will be a secondary focus of the final report. Rather, the emphases will be placed on the overview of cultural and geomorphic correlations, summaries of site-specific data, and upon identification of contexts in which archaeological sites are preserved as well as those where such sites are being destroyed. The predictive model will focus on the evolution of the floodplain and the known distribution of landscapes rather than mere cross-tabulations of known sites and environmental features. Special attention will also be given to the methods and techniques used to implement the ensuing research design with critical evaluation of the limitations and merits of such methods and techniques. Finally, based on the data acquisition and analyses, recommendations to more effectively manage cultural resources will be made both on a pool-wide and site-specific basis. The following direct labor allocations are identified for analyses and report preparation: B. Richasen, 16.0 man-hours; B. Fay 80 man-hours, D. Overstreet 100 man-hours, technicians, 80 man-hours.

Summary of Tasks:

The previously detailed tasks represent the necessary components to implement the following research design. A by-task schedule of man hours of key personnel is appended to this proposal. Resumes to allow for assessment of key personnel qualifications are also appended. The Great Lakes Archaeological Research Center, Inc. maintains 3,000 square feet of office and lab space, possesses a security system, maintains an automated data processing system, library and storage space. Numerous successfully completed tasks for Federal, State, and Municipal agencies as well as intact curation agreements underscore the firms capabilities to perform the desired contract work. Inspection of facilities is welcome at any time.

RESEARCH DESIGN:

This research design sets forth the rationale for the proposed investigation. As well, the design integrates the tasks previously identified to secure the necessary information if the objectives of the research are to be fulfilled. These objectives have been

developed in order to explore alternatives to models of human occupancy and adaptation on the lowland floodplain of the Upper Mississippi Valley. A brief synopsis is necessary to place the objectives of this research design in a meaningful context.

During the developmental years of archaeology in North America, investigations focused on mounds and mound groups with the intent of resolving the Mound Builder controversy. Essentially, the myth that various earthworks were constructed by an advanced "civilized" race was dispelled, in part, by mound investigations along the Upper Missippi River. Unfortunately, these early investigations, as well as many recent ones, were strongly biased with emphases placed on bluff tops and terraces where mounds were once numerous. The floodplain, because of its inaccessible nature has largely been ignored. A review of surveys within the last few decades underscores this bias. Investigations conducted by Hotopp (1977), Geier and Loftus (1975), Logan (1976), and Penmann (1980, 1981) have greatly enhanced the data base on terraces and uplands. The lowland floodplain plays no important role in these investigations.

During the 1980's, archaeological investigations on the floodplain began to fill this important gap. Such survey and testing operations conducted by Barnhardt et al (1982), Boszhardt and Overstreet (1982), Overstreet (1983), Boszhardt (1982), Stoltman et al (1982), and Theler (1983) have added an important dimension by demonstrating intensive lowland floodplain utilization during late prehistoric (Woodland) times. As well, to primary settlement-subsistence patterns have been presented. The first, and probably most popular model, depicts late prehistoric utilization of the floodplain as characterized by short-term extraction camps. The primary activity is identified as shellfish procurement and processing. This model has as its keystone, the proposition that floodplain activity is restricted to a short summer habitation, during which time shellfish were harvested, processed, and then removed to base-camps in terrace and upland settings (see Theler 1983).

An alternative to this seasonal round model has been presented by Overstreet (1983, 1984). Based on investigations in Navigation Pools 10 and 12, sufficient data have been recovered to establish the working hypothesis that late prehistoric occupation of the floodplain was of a more permanent and enduring nature.

For pre-woodland times, there is almost no hard data regarding man's activities on the floodplain. This absence of data has led many to speculate that the floodplain was a resource impoverished zone during early-middle Holocene times. Stoltman, for example, characterizes the entire Archaic Tradition as upland hunters and fishers suggesting these pre-Woodland populations made little use of floodplain resources. His assumptions are based on negative data, that is to say, no pre-Woodland components, aside from a few Late Archaic side-notched projectile points, have been recovered from floodplain contexts. After carefully reviewing all of the excavated contexts on the lowland floodplain from Pool 1-12 it is clear, at least to me, that no one has investigated a pre-300 B.C. landscape. In light of this phenomenal data gap we should not be suprized at the characterization of Archaic populations as upland adapted--we have no data from the floodplain. Some have even suggested that there is a major cultural hiatus in the upper valley. An embarrasing question must be asked. Why have archaeologist failed to identify these early land surfaces? Several plausible explanations can be used to answer this query.

The major limitation is the incomplete knowledge of the Holocene events that have resulted in the current floodplain configuration. In many localities even basic soils information is not available and the matrix of the floodplain is simply characterized as alluvial soils. Relative to upland contexts, soils scientists and geomorphologists have done almost no investigation of the floodplain. The logistical problems previously noted play an important role. However, the complexity of the environment is also a factor. Current research is focused on tributary drainages to secure a more accurate geomorphic history for the region. The rationale is that once the secondary drainage systems have become better known, these processes can then be extrapolated to the main stem floodplain. In conclusion, without an understanding

of the horizontal and vertical distribution of early-middle Holocene landsurfaces, archaeological survey for early sites was literally doomed to failure. This limitation was recognized by soil scientists who were familiar with archaeological problems. Bettis and Thompson delivered a severe indictment with reference to archaeological surveys in alluvial valleys:

> It is abundantly clear that sedimentological and archaeological records are differentially yet systematically preserved in western Iowa. This is a matter of geomorphic principal more than empirical observation. It is equally clear that site surveys in alluvial valleys are misdirected when notions of landscape stability are assumed forthrightly or implied by singular use of surface survey methods. Without benefit of landscape modeling, site survey will for all purposes be inadquate. Consequently, survey results will not be comprehensive in any sense nor will cultural resource planners and the archaeological community derive useful information.
>
> Though stratigraphic and geomorphic investigations can assist archaeologists engaged in site survey and excavation, as well as in planning and management, there are important limitations. Although the distributions of alluvial fills can be mapped and dated, it nevertheless remains to determine whether or not archaeological deposits are located somewhere within the three dimensions of alluvial fills in a valley. This is the paramount field problem dimly if at all perceived by status quo surveys. Its true scope is apparent when stratigraphic reconstructions are completed or where landscape models can be applied. The significance of this problem is obfuscated if it is transformed solely into a statistical sampling problem. Any excavations (hand excavated shafts, machine excavated trenches, or Giddings cores) are minute fractions of fill volumes. Therefore, constraints are physical and mechanical, not just statistical (1981: 11).

This is probably the most cogent statement in the literature relating to valley fill investigations. It does not approach the difficulty factors of working on the floodplain, but, does serve to clearly identify the major problems. As an adjunct to their commentary I would add that archaeologists have published reams of material relating to appropriate statistical sampling procedures. Incredible naivete is reflected that virtually all sampling procedures reflect the investigation of two rather than three dimensional data universes. In summary, the logistical difficulties, lack of knowledge of the actual Holocene aggradation of the floodplain, and sampling strategies designed for two dimensional environments

have all served to retard efficient archaeological investigations of the lowland floodplain of the Upper Mississippi Valley. More than 100 years after the first investigations of the region began, we have hardly scratched the surface where tremendous numbers of critical archaeological sites are preserved in context, buried in the more than 50 feet of Holocene silts and sands.

This research is not proposed as a status quo survey. The emphases will not be placed on obtaining large numbers of artifact and only chronicling disturbed shoreline sites. Rather, it is our intent to further test our model of floodplain development and to empirically demonstrate the presence of buried archaeological sites. We do not propose to provide a predictive model of site location based on the array of sites from literature/archive sources and cut-bank surveys. At this point we can already predict that most all of these sites will be Woodland era sites, that they will be located on eroding ridges of lateral accretion, and that many will be associated with shell middens. These sites are key points at which sub-surface investigations will seek to demonstrate the stratigraphic and geomorphic contexts in which early-middle Holocene sites may be expected.

The major assumption that serves to guide implementation of the research design is that our understanding of the sequence of floodplain development during the Holocene is accurate for such purposes. Figure 7 depicts our model of development based on excavation, remote sensing, and coring at the Prairie du Chien locality. Following the last major glacial lake drainages, about 9500 BP, the eroded Woodfordian surface of the terraces held a substantial amount of clay-rich ponded water. Flock (1983) has identified such contexts from the Big Muddy River in southern Illinois to Lake Pepin in Wisconsin. We have identified the clays deposited in slack-water environments both on the terraces and floodplain. Following recession of these glacial drainage aquatic regimes, the early Holocene floodplain was established some 50 or more feet below its present elevation. Throughout the Holocene, tributary drainages deposited both coarse and fine grained sediments in the trench. These of course exceeded the sediment load capacity of the Mississippi River and aggradation

continues into present times. The main channels at Navigation Pool 10 have changed little during the Holocene, and this pattern is likely for most of the Upper Mississippi River Valley. Based on bedrock constraints there is little doubt that variations were only minor in Pools 10, 11, and 12.

At some time during the late Holocene, aggradation became so pronounced that the floodplain began to capture the margins of the terrace. The Pleistocene topography at these locations has been masked by the ridge and swale topography associated with side channel fluctuations. On these terrace margins, Holocene sediments reflect late Holocene depositional sequences indicating that approximately 3.0m has been deposited during late Holocene times. In order to interpret buried archaeological contexts in these geomorphic situations, one must have an understanding of the original scoured terrace topography. As indicated in Figure 8, sites of the same time can occur at different elevations within the Holocene matrix so depth below the surface alone is not a reliable indicator of age. For example, both Cr 186 and Cr 340 (the deepest components) are likely middle to late Archaic. Older sites could be either above or below the elevations of these components on the terrace or on the floodplain. At the same time, middle-late Archaic occupations on the floodplain could be as much as 20 feet below those on the terrace. Finally, though there may be a tendency to interpret the early components at Cr 186 and Cr 340 as floodplain sites, in reality, they could have been upland sites, occupied prior to floodplain encroachment on the terrace margins. Without question, the three-dimensional floodplain matrix is an exceedingly complex geomorphic depositional system and there are certainly problems with our preliminary model. The complete occupational sequence has not yet been defined. However, we have identified pre-300 B.C. landscapes that were occupied, sometimes as much as 14-15' below the surface. Emphases need to be directed toward a more reliable sediment chronology of the valley fill. Archaeological sites provide the best opportunity to provide these necessary data.

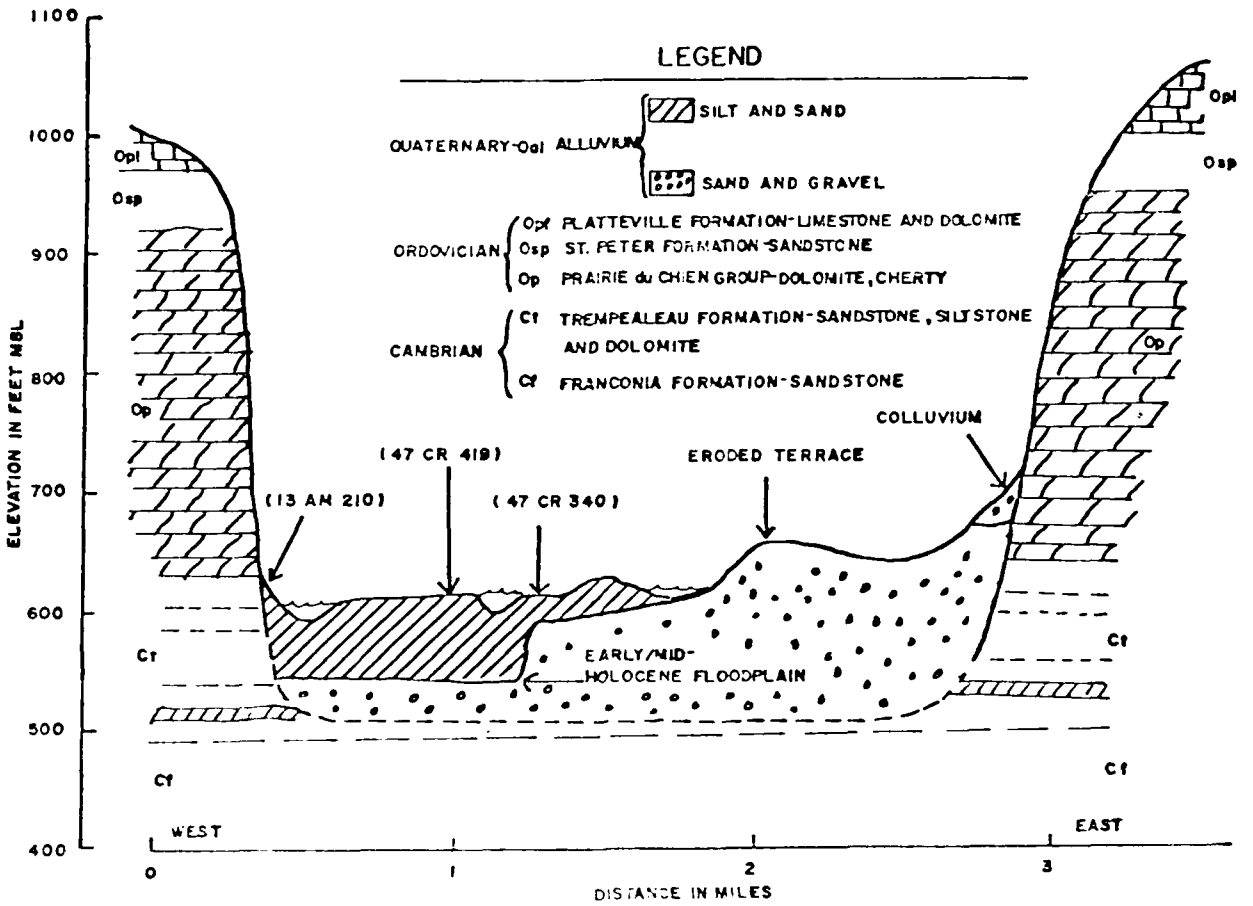


Figure 7: Model of floodplain development at Prairie du chien.

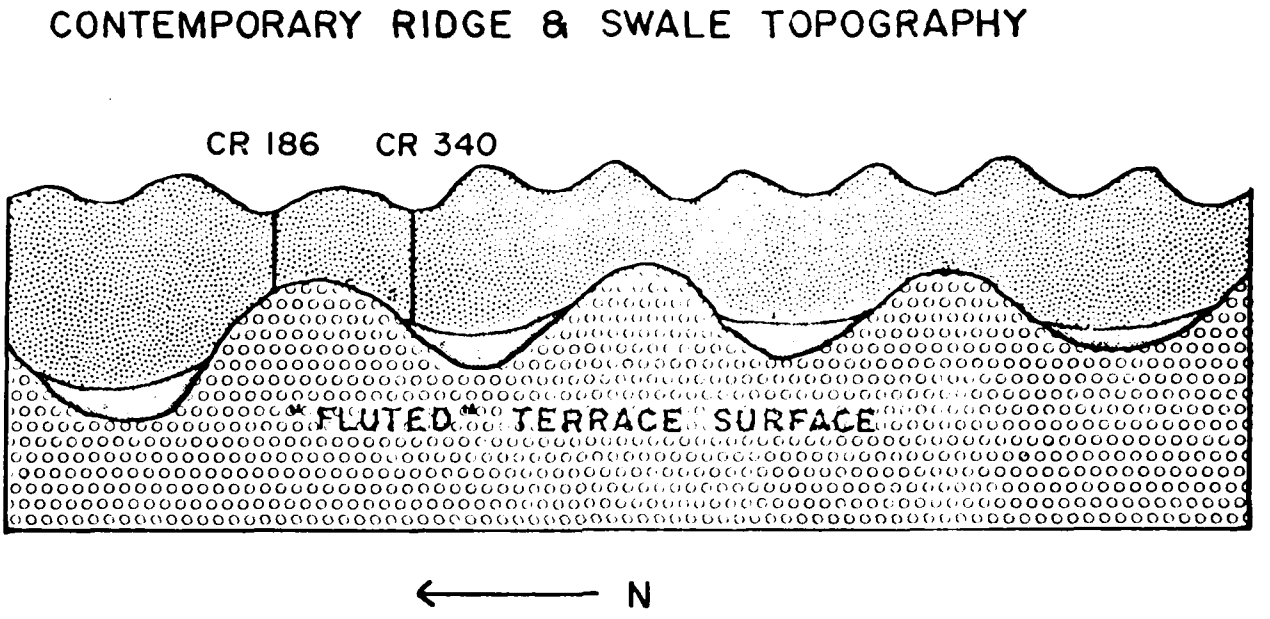


Figure 8: Stylized profile of captured terrace at the Dillman Tract, Navigation Pool 10.

The following narrative notes the integration of specific tasks within the framework of the research design. Tasks 2 and 3 will proceed simultaneously. Dr. Richasen's map work will provide an understanding of the recent land form changes in the pool, will provide a graphic summary of erosional and depositional environments, and will be useful for interpretation of sites noted during the literature/archive search and field work.

Mr. Fay's task is more extensive. He will incorporate the data provided by Richasen with his literature/archives search. Following Mr. Fay's identification of cultural resources from literature and informant work, the sites will be plotted on appropriate base maps for future field identification and for use by cultural resource managers and planners. Development of the overview narrative will follow the data collection.

Map history and site compilation will be utilized in the Stage 1 Field work. To supplement these features of pre-field research, the preliminary geomorphic model will be updated from the perspectives of current literature, communications with researchers familiar with the study area, e.g., Dr. James C. Knox who provided assistance on the Pool 10 and 12 studies, Dr. Richard C. Anderson who played an important role in the Pool 12 study, and a reconnaissance survey of the pool.

At this juncture, tasks 2, 3, and 4 will have been completed. The Phase I field strategy will take advantage of the information gained from these tasks. Initially, emphases will be placed on verification in the field of previously known or recorded archaeological sites to update and refine information. Near surface hand tool investigations will assist to define multiple buried components at known sites. Hand tools will also be used on suspected buried terrace margins to determine the depth of Holocene/Pleistocene contacts.

Preliminary remote sensing studies using seismic refraction, resistivity, and ground penetrating radar will be applied at known multi-component sites and at main channel features. Data sought are depth of anomalies at known archaeological sites, likely depth of bedrock in the main trench, position of differential grained sediments, and linear confirmation of terrace contexts.

Soil coring with Oakfield tools and pipe augers will supplement remote sensing investigations. Additional cut-bank surveys will proceed simultaneously with remote sensing activities. This will likely result in the identification of additional multi-component sites to be investigated with remote sensing and coring techniques.

Following this Phase I field investigation, preliminary or interim analyses will be conducted to evaluate archaeological and geomorphic data. While these evaluations are being conducted, intensive survey will be conducted at proposed development sites. The lab evaluations will focus on the identification of gaps in our data to be rectified by a second stage sampling program. In addition, dependent upon the results of the intensive survey work, test excavations, additional coring and auger work, and remote sensing may be conducted at locations where archaeological remains have been discovered.

Upon completion of second stage sampling, laboratory analyses and report preparation are to be completed. The major emphases of the report will be the identification of buried Holocene land surfaces which were occupied by the region's prehistoric inhabitants. We cannot attempt to develop a predictive model of site development for the entire Holocene sequence as our deep testing will be quite limited. For the late prehistoric period, where exposed surfaces will yield more substantial artifact assemblages, sites will be evaluated in terms of contemporary settlement-subsistence models for the region.

For purposed of management and planning, each site will be accurately and adequately described. Present erosional contexts will be defined and evaluated in terms of historic mapping data. Photographic records will be provided for each site as a basis to monitor future erosion. Each site form will include appropriate maps, legal descriptions, and UTM coordinates to ensure easy site relocation during future investigations or management activities.

All applications of traditional and non-traditional, i.e. remote sensing, methods and techniques will be critically evaluated in terms of information yield, future applications, and cost effectiveness. In particular, how well the methods and techniques

applied during the investigation met the demands of the research design will be considered.

Finally, the conclusions of the report will emphasize what we have learned as a result of this particular investigation. The limitations of our data will also be clearly documented. Recommendations will be directed to the ways in which the distribution of buried land surfaces can be better understood and the necessary efforts to provide more accurate sediment geochronology for the valley fill. Until such information is available, clearly beyond this scope of work, comprehensive predictive models of site location in the three dimensional floodplain matrix cannot be developed.

SCHEDULE:

The following schedule will implement the research design. For conveneience of evaluation, personnel and man-hours are identified on a task-specific basis:

Task 1: Within 20 days following contract award, project management system will be in place. A meeting will be requested with cultural resource specialists at the Rock Island District to review base map needs, identify appropriate historic maps, collect boring logs, and review the schedule of the project. As well, guidelines will be discussed for report submittals for monthly progress.

The study team will meet to review documentation procedures for task accomplishment and personnel assignments. Special attention will be given to provide continuous communication between study team members. Communication will be established with all appropriate state, federal, and local agencies to hasten data collection and avoid problems with site access. Permits will have to be secured from the Fish & Wildlife Service. It is estimated that the principal investigator, during the term of the investigations, will devote 150 man-hours to project management. Mr. Richasen, Mr. Fay, and Ms. Underwood will each spend 4.0 man-hours devoted to Task 1.

Task 2: This task entails the mapping history of Pool 11. Within 20 days following contract award and receipt of materials from

the Rock Island District archives. Mr. Richasen is sceduled for 96 man-hours for mapping history.

Task 3: Mr. Fay will begin the archives/literature search within 15 days following the contract award. Initial emphases will be placed on site data compilation to guide the field research. Upon completion, documentation will focus on the abandoned town of Peru, Iowa. Mr. Fay, as consulting historic archaeologist, will also spend several days in the field at the Peru site. He will also have added responsibilities of identification of historic cultural materials recovered during the field phases.

Upon completion of site specific data, Mr. Fay will draft the over-view narrative in thematic contexts. Mr. Fay's responsibilities will entail 480 man-hours.

Task 4: Boring logs, well logs, and other published data will be reviewed by Underwood and Overstreet for landscape model refinement. Underwood and Overstreet will each devote 40 man-hours to this task. The task will be implemented within 20 days following contract award.

Task 5: This task represents the major man-power effort of the study. The three stages defined for task 5 will require 160 man-hours for the principal investigator, 80 hours for Ms. Underwood, and 300 man-hours for archaeological technicians. Task 3 is scheduled to begin one-month following contract award. It should be noted, however, that flexibility in field work may be necessary. It is not feasible to conduct survey work when pool levels are abnormally high. Much time is wasted and results are equivocal, thus, implementation of Task 5 is partly dependent upon pool level conditions. This possibility should be considered during negotiations.

Task 6: Task 6 will be implemented immediately following the preliminary and interim analyses and evaluations. If the first phase field work is not hindered by high water levels, the second phase will begin 60-70 days following contract award. Forty man-hours are scheduled for Overstreet, 40 for Underwood, and 80 for archaeological technicians.

Task 7: Data analyses and report preparation will commence 100 days following the award of contract. Mr. Richasen will devote 16.0 man-hours to report preparation, Ms. Underwood, 80.0 hrs., Mr. Overstreet 100 hours, and Mr. Fay 80 hrs. Draft submittal of the report will occur at approximately 160 days following contract award. Table 1 indicates man-hours by task and associated travel allocations.

Table 1

Task	Overstreet	Richasen	Underwood	Technicians	Fay
1	150 hrs. (4 days)	4 hrs.	4 hrs.		
2		96 hrs.			
3					480 hrs (20 days)
4	40 hrs.		40 hrs.		
5	160 hrs. (24 days)		80 hrs. (12 days)	300 hrs. (40 days)	
6	40 hrs. (6 days)		40 hrs. (6 days)	80 hrs. (12 days)	
7	100 hrs. (4 days)	16 hrs.	80 hrs.	80 hrs.	80 hrs
Total hrs:	490 hrs.	116 hrs.	244 hrs.	460 hrs.	560 hrs
Total days travel:	38		18 days	52 days	20 days

STUDY TEAM:

Resumes of key personnel are appended to this proposal as attachment A. All technicians employed by Great Lakes Archaeological Research Center, Inc. exceed minimum professional qualifications.

SUMMARY:

This proposal is guided by a research design developed through archaeological investigations on the lowland floodplain of the Mississippi River Valley. It is not a status quo approach as indicated in Bettis and Thompson 1981. The design can be implemented only through the tasks identified in this proposal, and, only with the use of remote sensing technology. The product as identified in the 7 tasks and the research design are specifically directed toward the objectives stated in the solicitation. Recent cultural resources investigations have focused on where sites are being destroyed by erosion. This is a positive and necessary endeavor given the obligations of the Rock Island District, U.S. Army Corps of Engineers to the significant body of legislative mandates. Recent surveys, however, have not identified specific buried landscapes where we now know archaeological sites are preserved in place. The reasons for this data gap are many and complex and have already been detailed. We propose to provide the necessary management data required. The research design goes well beyond that responsibility. We may not be able to detail the entire Holocene cultural sequence on the floodplain. This investigations is focused on the discovery and identification of buried archaeological sites and surfaces we have demonstrated to exist in the valley fills. If we do not investigate the older alluvial surfaces we can hardly expect to find traces of the occupants of those surfaces. Two dimensional techniques have provided substantial information regarding the last 2000 years of floodplain habitation. We propose to focus on the first 8000 years.

For years, climatologists, geomorphologists, and archaeologists have attempted to explore the significant changes of Holocene climatic conditions, human responses to these changes, and the effects wrought on the landscape. To most effectively operationalize these traditional yet poorly understood models of climate, man, and landscape, a full Holocene sedimentary record is needed. The most rewarding archaeology of the next several decades will be conducted at deeply buried sites in alluvial sediments, particularly on the Mississippi floodplain. Currently our knowledge has severe limits and restraints. This proposal seeks to reduce those limits and restraints by investigating the unmolested sequence of the floodplain, a sequence that spans some 10,000 years yet is completely unknown in the Pool 11 locality.

SUPPLEMENTAL NOTE:

As specified in Part IV-Section L, 31, (d) the following arrangements have been made to secure skills and equipment not available within our organization. Ms. Joan Underwood will be employed under sub-contract to Donohue & Associates, Inc. Ms. Underwood, Hydrogeologist, has extensive experience with remote sensing technology. Seismic refraction, resistivity, and ground penetrating radar will be rented on a day or week basis. The Donohue subcontract meets the restrictions (20%) of this procurement. The management system will be the sole responsibility of Great Lakes Archaeological Research Center, Inc.

ATTACHMENT A-STUDY TEAM VITAE

CURRICULUM VITA

DAVID FREDERIC OVERSTREET

PII Redacted

[redacted]

[redacted]

Special Areas of Interest:

North American Prehistory, Ethnography, and Ethnohistory, Great Lakes Region. Historical Archaeology-19th Century Logging Industry. Public Education, Cultural Resources Management, and Administration. Historic Preservation Law.

Academic History:

Bachelor of Science, Anthropology, University of Wisconsin-Milwaukee, 1968
Master of Science, Anthropology, University of Wisconsin-Milwaukee, 1971
Doctor of Philosophy, Anthropology, University of Wisconsin-Milwaukee, 1976

(Data universe: Horticultural Societies; Geographic Region; Prehistory and Ethnology, Eastern United States; Dissertation Title: "The Grand River, Koshkonong, Green Bay, and Lake Winnebago Phases--Eight Hundred Years of Eastern Wisconsin Oneota Prehistory." Foreign Language proficiency: Spanish and French. Minor Studies: Linguistics)

Membership in Professional Organizations and Societies:

Society for American Archaeology, Wisconsin State Representative Committee for Public Archaeology. 1978, 1979, 1980.
American Anthropological Association
American Association for the Advancement of Science
American Museum of Natural History, Associate Member
Missouri Archaeological Society
Minnesota Archaeological Society
Michigan Archaeological Society
Wisconsin Archaeological Society, President 1976-77, Board of Directors 1978-82, Program Chairman 1974-77, 1980-82, Editor, The Wisconsin Archeologist, 1977-82.
The State Historical Society of Wisconsin
The Waukesha County Historical Society, Board of Directors 1982
The Wisconsin Academy of Arts, Science, and Letters
The Wisconsin Archaeological Survey, Secretary-Treasurer 1976-77, President 1978-79.
The Iowa Archaeological Society

Professional Papers presented:

1971 Midwest Archaeological Field Conference, Cleveland, Ohio.
1971 The Wisconsin Archaeological Society, Milwaukee, Wisconsin.
1972 The Wisconsin Archaeological Society, Milwaukee, Wisconsin.
1973 The Wisconsin Archaeological Society, Milwaukee, Wisconsin.
1974 Society for American Archaeology, Washington, D.C.
1974 Midwest Archaeological Field Conference, Milwaukee, Wisconsin.
1975 Northland College, Apostle Island National Lakeshore Research Symposium, Ashland, Wisconsin.
1975 Invited participant, Woodland Survey Conference, Northern Michigan University, Marquette, Michigan.
1975 Cultural Resources Symposium, University of Wisconsin-Waukesha County.
1976 Invited Participant, Woodland Survey Conference, University of Wisconsin-Marathon County.
1976 Logan Museum of Anthropology, Beloit College, Beloit, Wisconsin.
1976 Midwest Archaeological Field Conference-Plains Anthropology Conference (joint meeting), Minneapolis, Minnesota.
1976 The Wisconsin Archaeological Society, Milwaukee, Wisconsin.
1976 The Wisconsin Archaeological Society, Charles E. Brown Chapter, Madison, Wisconsin.
1978 Kenosha Public Museum, Kenosha, Wisconsin.
1978 The Wisconsin Archaeological Society, Dr. Bruder Chapter, Mayville, Wisconsin.
1978 The Wisconsin Archaeological Society, Fox Valley Chapter, Oshkosh Public Museum, Oshkosh, Wisconsin.
1978 The Wisconsin Archaeological Society, Charles E. Brown Chapter, Madison, Wisconsin.
1978 The Wisconsin Archaeological Society, Milwaukee, Wisconsin.
1979 The Wisconsin Academy of Science, Arts, And Letters, Carthage College, Kenosha, Wisconsin.
1980 Current Directions in Midwestern Archaeology, sponsored by Mankato State University and the Council for Minnesota Archaeology, Mankato, Minnesota.
1983 Ontario Archaeological Society, Thunder Bay, Ontario.

Public Service Presentations:

Various presentations to government agencies such as the United States Forest Service, National Park Service, Department of Natural Resources, Planning Commissions, etc. Various presentations to both elementary and secondary school groups. Various presentations to professional organizations Lion's club, Legal Secretaries, Questars Club, etc. Various presentations to local historical societies and church groups.

BIBLIOGRAPHY

Professional Publications:

1972 The Archaeological Survey of the Columbia Power Plant, The Wisconsin Archeologist, ns., Vol. 53 (2).

1974 A Rapid Field Test for Archaeological Site Survey: An Application and Evaluation. The Wisconsin Archeologist, n.s., Vol. 55 (4).

1975 Summary Report: Archaeological Survey of Madeline Island. Manuscript on file, Department of the Interior and The State Historical Society of Wisconsin.

1976 Summary Report: Archaeological Inventory and Evaluation of the Cultural Resources within the Apostle Islands National Lakeshore. The Logan Museum of Anthropolgy, Beloit College, Beloit, Wisconsin.

1977 Wisconsin Binomial Pottery Types and Oneota Prehistory. The Wisconsin Archeologist, ns. Vol. 58 (2).

1978 Oneota Settlement Patterns in Eastern Wisconsin--Some Consideration of Time and Space. In: Mississippian Settlement Patterns, Bruce Smith, ED. Academic Press.

1980a The Convent Knoll Site (47 Wk 327): A Red Ocher Cemetery in Waukesha County, Wisconsin. The Wisconsin Archeologist, n.s., Vol. 61 (2).

1980b Archaeological Recovery at 11-Ri-337, an Early Middle Woodland Shell Midden in East Moline, Illinois. The Wisconsin Archeologist, n.s. Vol. 61 (2).

1981a Investigations at the Pipe Site (47-Fd-10) with an Interpretation of Eastern Wisconsin Oneota Prehistory. The Wisconsin Archeologist, m.s. Vol. 62 (4).

1981b Applications of Menominee-Winnebago Subsistence Patterns to Lake Prehistoric Manifestations in the Green Bay Coastal Corridor. In: Current Directions in Midwestern Archaeology--Selected Papers from the Mankato Conference, Scott F. Anfinson, ED. Occasional Publications in Minnesota Anthropology No. 9.
Minnesota Archaeological Society.

1983 Preliminary Investigations: Archaeology and Sediment Geomorphology, Navigation Pool 12, Upper Mississippi River. The Wisconsin Archeologist Vol. 64 (1-2): 111-183.

Reviews:

1980 A Handbook of Minnesota Prehistoric Ceramics. Occasional Publications in Minnesota Anthropology, No. 5. S.F. Anfinson, Ed. In: The Wisconsin Archeologist, Vol. 61 (1).

1981a Oneota Culture in Northwestern Iowa. Amy E. Harvey. Report 12, Office of the State Archaeologist, The University of Iowa. In: Plains Anthropologist, 26-91

1981b A Handbook of Minnesota Prehistoric Ceramics. Occasional Publications in Minnesota Anthropology, No. 5. S.F. In: The Minnesota Archaeologist, Vol. 40 (1).

1981c Exploring Iowa's Past. Lynn Marie Alex. University of Iowa Press. Iowa City, Iowa. In: The Wisconsin Archeologist, Vol. 62 (4).

1981d Eastern Iowa Prehistory. Duane Anderson. Iowa State University Press, Ames, Iowa. In: The Wisconsin Archeologist, Vol. 62 (4).

1983 National Science Foundation Research Proposal.

Technical Publications (Contract Archaeology):

1976 An Intensive Inventory, Davenport Iowa, Local Flood Protection Project. Great Lakes Archaeological Research Center Reports of Investigations No. 2. Waukesha.

1976 An Archaeological Inventory of Sanitary Sewer Collection System and Waste Disposal Treatment Facility: Town of Salem Utility District No. 2, Kenosha County. Great Lakes Archaeological Research Center, Reports of Investigations No. 3. Waukesha.

1976 An Archaeological Inventory and Evaluation of the Sheboygan Falls and Kohler Forcemain Routes. Great Lakes Archaeological Research Center Reports of Investigations No. 6. Waukesha.

1976 Archaeological Monitoring and Mitigation, Campground and Trails Development and Rehabilitation, The Apostle Islands National Lakeshore, Stockton Island. Great Lakes Archaeological Research Center Reports of Investigations No. 7. Waukesha.

1976 An Archaeological Survey of The Fennimore, Wisconsin proposed Interceptor Sewer Route and Sewage Treatment Plant Site. Great Lakes Archaeological Research Center Reports of Investigations No. 8. Waukesha.

Technical Publications (Contract Archaeology) Cont'd.

1976 Archaeological Inventory and Evaluation, Walworth County Metropolitan Sewerage District. Great Lakes Archaeological Research Center, Reports of Investigations No. 12. Waukesha.

1977 Archaeological Survey for Fox River Navigation Project Disposal Sites. Great Lakes Archaeological Research Center, Reports of Investigations No. 13. Waukesha.

1977 Cultural Resource Reconnaissance, Five Lake Michigan Harbors. Great Lakes Archaeological Research Center, Reports of Investigations No. 16. Waukesha.

1977 Archaeological Inventory, The Sturtevant Facilities Sturtevant, Wisconsin. Great Lakes Archaeological Research Center No. 18. Waukesha.

1977 Archaeological Inventory and Evaluation: The Proposed Waukesha County Technical Institute Expansion Project. Great Lakes Archaeological Research Center, Reports of Investigations No. 20. Waukesha.

1977 Archaeological Inventory and Evaluation of the Weston Unit 3 Power Plant Site. Great Lakes Archaeological Research Center, Reports of Investigations No. 21. Waukesha.

1977 Archaeological Inventory and Evaluation of Brillion, Wisconsin Wastewater Treatment Plant Facilities. Great Lakes Archaeological Research Center, Reports of Investigations No. 22. Waukesha.

1977 Archaeological Inventory and Evaluation of Butte Des Morts Utility District, Menasha (West). Great Lakes Archaeological Research Center, Inc. Reports of Investigations No. 23. Waukesha.

1977 Partial Inventory of The Eagle Lake Sewer Utility District. Great Lakes Archaeological Research Center, Inc. Reports of Investigations No. 25. Waukesha.

1977 Cultural Resources Reconnaissance, Loves Park, Illinois. Interim 2, Flood Feasibility Study. Great Lakes Archaeological Research Center, Reports of Investigations No. 28. Waukesha.

1977 Cultural Resources Reconnaissance of a Proposed Small Boat Harbor at Green Bay, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 30. Waukesha.

Technical Publications (Contract Archaeology) Cont'd.

1978 Cultural Resource Evaluation of the Sturgeon River Wilderness Study Area, Ottawa National Forest. Great Lakes Archaeological Research Center, Reports of Investigations No. 33. Waukesha.

1978 Cultural Resources Reconnaissance for the Des Moines River Bank Erosion Study. Great Lakes Archaeological Research Center, Reports of Investigations No. 32. Waukesha.

1978 Cultural Resource Evaluation of Two Chequamegon National Forest Wilderness Study Areas: Flynn & Round Lakes. Great Lakes Archaeological Research Center, Reports of Investigations No. 34. Waukesha.

1978 Archaeological Survey in Three Waukesha County Drainage Systems-The Fox, Bark, and Pewaukee Rivers. Great Lakes Archaeological Research Center, Reports of Investigations No. 35. Waukesha.

1978 Archaeological Inventory and Evaluation of The Proposed Wastewater Treatment Plant Facilities, Fond Du Lac County, Wisconsin. Great Lakes Archaeological Research Center Reports of Investigations No. 36. Waukesha.

1978 Archaeological Survey of Proposed Construction Areas in The Horicon National Wildlife Refuge. Great Lakes Archaeological Research Center, Reports of Investigations No. 39. Waukesha.

1979 Cultural Resources Overview of The Chequamegon National Forest. Great Lakes Archaeological Research Center, Reports of Investigations No. 50. Waukesha.

1979 Archaeological Recovery at 11 Ri 337, An Early Middle Woodland Shell Midden in East Moline, Illinois. Great Lakes Archaeological Research Center, Reports of Investigations No. 60. Waukesha.

1979 Archaeological Survey and Test Excavations in The Fox River Drainage-- Waukesha, Racine, and Kenosha Counties. Great Lakes Archaeological Research Center, Reports of Investigations No. 67. Waukesha.

1979 Archaeological Studies at the Mile-Long Site (47 Wl 110), A Planning and Preservation Report. Great Lakes Archaeological Research Center, Reports of Investigations No. 70. Waukesha.

1979 Archaeological Inventory: Proposed Oshkosh Area Sanitary System. Great Lakes Archaeological Research Center, Reports of Investigations No. 72. Waukesha.

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1979 Archaeological Survey of the Proposed Packerland Industrial Park Post Office Site. Green Bay, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 78. Waukesha.

1979 Archaeological Evaluation of the Proposed Madison Area Technical College at the Burke Site, Madison, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 81. Waukesha.

1979 Archaeological Survey of The East Shore of Lake Winnebago, 1979. Great Lakes Archaeological Research Center, Reports of Investigations No. 86. Waukesha.

1979 Archaeological Survey of The Green Bay Coastal Corridor. Great Lakes Archaeological Research Center, Reports of Investigations No. 87. Waukesha.

1980 Archaeological Inventory of the Proposed Interceptor Sewer at the City of Mayville, Dodge County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 91. Waukesha.

1980 Archaeological Survey of Two Proposed Dredge Disposal Sites at the Sturgeon Bay Ship Canal. Great Lakes Archaeological Research Center, Reports of Investigations No. 92. Waukesha.

1980 Archaeological Inventory of a Proposed Development Site at the Intersection of U.S. Highways 41 and 10 near Appleton, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 96. Waukesha.

1980 Archaeological Investigations at Jim Falls, Chippewa County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 99. Waukesha.

1981 Archaeological Survey of the East Shore of Lake Winnebago: 1980-81. Great Lakes Archaeological Research Center, Reports of Investigation No. 100. Waukesha.

1981 Archaeological Inventory and Evaluation of the Exxon Minerals Company Crandon Project Site, Forest and Langlade counties, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 107. Waukesha.

1981 Archaeological Reconnaissance of Lewiston and Portage Levees, Portage, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 108.

1981 Identification and Evaluation of Logging Industry-Related Cultural Resources, Nicolet National Forest. Great Lakes Archaeological Research Center, Reports of Investigations No. 114. Waukesha.

1981a Preliminary Investigations: Archaeology and Sediment Geomorphology, Navigation Pool 12, Upper Mississippi River. Great Lakes Archaeological Research Center, Reports of Investigations No. 115.

1982 Cultural Resources Literature Search and Records Review Upper Mississippi River Basin. Volumes I-XII, 24 Supplements. Great Lakes Archaeological Research Center, Reports of Investigations No. 116. Waukesha.

1982 Archaeological Survey at the Proposed Kremlin Pipline - Marinette County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 117. Waukesha.

1982 Archaeological Survey at the Proposed Law Enforcement Center - Keshena, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 118.

1982 Archaeological Survey of the Proposed Gas Main to the Summit Regulator Station, Waukesha County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 119.

1982 Archaeological Reconnaissance at Andalusia, Rock Island County, Illinois. Great Lakes Archaeological Research Center, Reports of Investigations No. 120.

1982 Archaeological Reconnaissance, Freeport, Illinois Storm Water Holding Pond. Great Lakes Archaeological Research Center, Reports of Investigations No. 121.

1982 Archaeological Survey of the Proposed Hintz Substation Site, Outagamie County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 122.

1982 Archaeological Inventory of the Proposed Winneconne Sanitary District #3 Facilities, Winnebago County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 123.

1982 Archaeological Inventory of a Proposed Building Site, Wausau Industrial Park, Marathon County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 124.

1983 Intensive Survey At 11-Jd-126, Jo Daviess County, Illinois. Great Lakes Archaeological Research Center, Reports of Investigations No. 125.

1983 Archives and Literature Search and an Archaeological Inventory for the Proposed Medium Security Prison Site at the Winnebago State Prison Farm. Great Lakes Archaeological Research Center, Reports of Investigations No. 126.

1983 Archaeological Survey - Proposed County Sanitary Landfill, Janesville, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 127.

1983 Archaeological Survey at the Proposed Lake Comus Dredge Disposal Site, Walworth County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 128.

1983 Evaluation of 47 WK 363, Waukesha Avenue Project, Sussex, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 129.

1983 Archaeological Survey of a Proposed Natural Gas Pipeline Corridor in the Village and Town of Mukwonago, Waukesha County, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 130.

1983 Archaeological Survey of a Proposed Community Development Block Grant Project, La Crosse, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 131.

1983 Archaeological Survey of Henry Schuette Park, Manitowoc, Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 132.

1983 Archaeological Survey of the Little Plover River Park, Plover, (Portage County), Wisconsin. Great Lakes Archaeological Research Center, Reports of Investigations No. 133.

Archaeological Field Experience:

Fifteen years of field experience in Wisconsin, Illinois, Iowa, Michigan, and Minnesota.

Grants and Honors:

1971 The Wisconsin Archaeological Society. Dissertation research at the Pipe Site, Pipe, Wisconsin.

1971 Academic Dean's nominee as National Candidate for Woodrow Wilson Dissertation Support Fellowship.

1972 The Wisconsin Archaeological Society. Dissertation research at the Pipe Site, Pipe, Wisconsin. University of Wisconsin-Milwaukee Graduate School Fellowship.

1974 Appointed Logan Fellow, Logan Museum of Anthropology, Beloit College (appointment declined).

1975 Appointed Research Associate, Logan Museum of Anthropology, Beloit College.

1976 Title VI-A Grant to establish comparative teaching collection in Anthropology, University of Wisconsin - Waukesha.

1977 Historic Site Survey Grant from National Advisory Council on Historic Preservation. Administered by The State Historical Society of Wisconsin, Historic Preservation Division.

1978 Historic Site Survey Grant from National Advisory Council on Historic Preservation. Administered by The State Historical Society of Wisconsin, Historic Preservation Division.

1978 Archaeological Survey Grant from National Oceanic and Atmospheric Administration--Coastal Zone Management Program. Administered by the State Historical Society of Wisconsin and Wisconsin Department of Administration.

1979 Historic Site Survey Grant from National Advisory Council on Historic Preservation. Administered by The State Historical Society of Wisconsin, Historic Preservation Division.

1979 Zieman Foundation. Grant for printing subsidy for The Wisconsin Archeologist.

1979 Helfaer Foundation. Grant for printing subsidy for The Wisconsin Archeologist.

1979 Awarded the Increase A. Lapham Research Medal for distinguished research in Anthropology. The Wisconsin Archeological society.

1979 Awarded the Robert E. Ritzenthaler service award, The Wisconsin Archeological Society.

1980 Grant from the Rock Island District, U.S. Army Corps of Engineers for printing subsidy for The Wisconsin Archeologist.

1980 Grant from the Grootemaat Foundation for printing subsidy for The Wisconsin Archeologist.

1980 Grant from the Helfaer Foundation for printing subsidy for The Wisconsin Archeologist.

1980 Grant from the Zieman Foundation for printing subsidy for The Wisconsin Archeologist.

1981 Grant from the Zieman Foundation for hardware and software for production of The Wisconsin Archeologist

1982 Grant from the Rock Island District, U.S. Army Corps of Engineers for printing subsidy for The Wisconsin Archeologist.

1983 Gubernational Appointment - Appointed by Governor Anthony Earl to Historic Preservation Review Board.

Employment History:

Military service: U.S. Army, honorably discharged, July 1963.

1969-1971 Teaching Assistant in Anthropology, Department of Anthropology, University of Wisconsin-Milwaukee.
1973 Lecturer in Anthropolgy, Marquette University.
1974 Lecturer in Anthropolgy, University of Wisconsin-Milwaukee.
1972-1981 Associate Professor of Anthropology (tenure), The University of Wisconsin-Waukesha.
1975-1982 Director, Great Lakes Archaeological Research Center, Inc., Waukesha, WI.
1975-1982 Chairman, Board of Directors, G.L.A.R.C., Inc.

University Courses Taught:

Introduction to Cultural Anthropology
General Anthropology
Introduction to Physical Anthropology
Intermediate Sociocultural Analysis
Human Evolution and Variation
Survey World Prehistory--Origins of Civilization
Survey of World Ethnography
Methods and Techniques in Archaeology*
Wisconsin Prehistory
Comparative Religion
Field Archaeology--Survey and Excavation
Analyses of Archaeological Materials and Data
Hominid Paleontology
North American Prehistory
North American Indians
Indians of The Western Great Lakes

Adult Education Courses Taught:

Site Survey in Archaeology, University of Wisconsin Extension.
Map Making and survey techniques in Archaeology, University of Wisconsin Extension.
Field Methods in Archaeology, University of Wisconsin Extension.

Consultant To:

U.S. Department of the Interior, national Park Service
U.S. Department of Agriculture, U.S. Forest Service
Department of the Army, Corps of Engineers, Rock Island District, St. Paul District, Detroit District, Chicago District.
U.S. Postal Service
U.S. Fish & Wildlife Service
Exxon Minerals Company
Donahue and Associates, Inc.
CH2M Hill
Howard Needles, Tamment & Bergendoff, Inc.
Owen Ayres & Associates, Inc.
Numerous State Agencies, Municipalities, and Private Industry in Wisconsin, Minnesota, Iowa, Illinois and Michigan.

BENJAMIN F. RICHASON JR.
Remote Sensing Specialist

EDUCATION:

Post Doctoral Studies, Remote Sensing, Soil Science, Computer Science, Purdue University, West Lafayette, Indiana - 1980

Ph.D. - Geography; Minors: Anthropology and Agronomy, University of Nebraska, Lincoln, Nebraska - 1960

M.S. - Geography, Indiana University, Bloomington, Indiana - 1949

A.B. - Geography; Geology, Indiana University, Bloomington, Indiana - 1948

REGISTRATION:

Certified Photogrammetrist (ASP)

EMPLOYMENT HISTORY:

1981 - Present	Donohue & Associates, Inc.
1952 - Present	Carroll College
1950 - 1952	University of Nebraska
1949 - 1951	Morton Junior College
1948 - 1949	Indiana University

AREAS OF SPECIALTY:

Remote Sensing of the Environment
Aerial Photograph Interpretation
Soils Classification
Computer Modeling of Landsat Data

EXPERIENCE:

* Ore body delimitation, Jamaica, West Indies. The purpose of the project was to locate bauxite ore bodies in the Essex Valley and Manchester Plateau in Jamaica by use of ground-penetrating radar. The radar operated in P-Band and provided a continuous sub-surface profile in real time of the interface between ore bodies and limestone bedrock. The ore body radar charts were analyzed and processed by special computer programs. The computer products were isopleth charts and isometric, perspective views of potential mining pits.

* Landfill site monitoring. The purpose of the study was to monitor possible leachate from a landfill site near Eden Prairie, Minnesota. The remote sensing procedures employed included aerial color infrared photography and aerial thermal infrared imaging. Surface truthing was employed to corroborate anomalies obtained from color infrared and thermal imagery.

* Remote sensing studies of archaeological sites at New Seville, Jamaica, West Indies. The National Trust Commission of Jamaica requested information about possible archaeological excavation sites at New Seville, the first capital of Jamaica which was established in 1510. Aerial color infrared photography (CIR) missions were flown of the area between Priory and St. Ann's Bay to obtain vertical stereoscopic, small format color infrared and conventional color photographs. A ground survey was conducted to establish grid lines along which ground-penetrating radar was moved. Anomalies from the radar were correlated with the discontinuities observed on the CIR film. The aerial photographs were assembled into a mosaic of the New Seville archaeological area. Subsurface anomalies were identified and mapped for future excavation. The remote sensing procedures did not disturb the ecosystem of the area.

  Nature, extent, and drainage of wetlands in the Wisconsin drift area of northern and central Indiana. Individual research, supported by a grant from the National Science Foundation. Present and past wet soil area were located and mapped in the field. Tile and ditch drainage ways were located and mapped. Economic and human responses to land drainage were correlated to changes in wetland areas. Early perceptions of wetlands were studied, along with changes in public health as a result of the presence and subsequent drainage of wetlands in central and northern Indiana.

* Soil classification and farm pond surveys, Waukesha County, Wisconsin. The purpose of the project was to classify soils and survey areas by means of engineering procedures for the construction of farm ponds in Waukesha County. In addition, drainage ditch lines were surveyed for construction crews. The work was done for the U.S. Soil Conservation Service.

* Chaired committee on natural resources and environmental design, Southeastern Wisconsin Regional Planning Commission. The nature of the work involved meeting with hydrologists, soil scientists, geologists, geographers, sanitary engineers, agronomists, and foresters to coordinate and monitor proposed environmental changes in the planning phases of southeastern Wisconsin.

* Member of the Fox River planning committee. The work involved preparing a comprehensive land use plan for the Fox River watershed in southeastern Wisconsin. In addition, the work concerned making presentations to farm groups, town councils, urban groups, and county boards regarding the nature and importance of the watershed plan, which was being developed by the Southeastern Wisconsin Regional Planning Commission.

* Microprocessor computer systems development. Stand alone and mainframe computer systems were developed for the purpose of classifying and interpreting Landsat digital subscene data. The classifier used is the parallelepiped algorithm. The mainframe computer was made to interact with microcomputers for a cost-effective method in training and classifying pixels from Landsat computer compatible tapes.

* Landsat analysis and classification of soils and crop cover in Tipton County, Indiana. The problem was to determine the degree to which soil types and corn and soybeans can be differentiated and classified digitally by use of Landsat CCT's as applied to microcomputers.

* Agriculture cultivation and harvesting patterns analysis. The problem in this project was to determine cultivation and harvesting patterns from vertical and oblique aerial photographs. The area of investigation was the Pebble Creek watershed in Waukesha County, Wisconsin.

* Wildlife counts and physical stress in wildlife by use of aerial thermography. Analog thermography data were supplied by Donohue, and the data were digitized and interpreted for ability to yield wildlife counts and stresses. The purpose of the investigation was to determine the effectiveness of aerial thermography in monitoring numbers and physical states in wildlife.

* Organized and conducted field work in Mexico for trainers of teachers in a project sponsored and financed by the U.S. Department of Education. The purpose of the project was to develop field techniques and aerial photograph interpretation procedures which would allow scientists to collect reliable data in foreign countries without complete command of the language of the country.

MEMBERSHIPS:

Association of American Geographers
National Council for Geographic Education
American Society of Photogrammetry
Gamma Theta Upsilon, International Honor Society in Geography
Sigma Xi, Research in Science

PROFESSIONAL ACTIVITIES:

General Chair, National Council for Geographic Education (NCGE) Convention, Ocho Rios, Jamaica, W.I., October 23-28, 1983.

Recipient, "Outstanding Science Book Award for 1978," The Geographic Society of Chicago, May 5, 1979.

Member, Scientific Areas Preservation Council, State of Wisconsin, 1968.

Member, Panel of Consultants, Media Specialists Program, Bureau of Libraries and Educational Technology, U.S. Office of Education, 1969-1971.

Member, Commission on Geographic Education, Association of American Geographers, 1969-1971.

Associate Editor, The Journal of Geography, National Council for Geographic Education, 1970-1971.

Editor, Printed Materials Center, National Council for Geographic Education, 1970-1972.

Director, Media Materials Center, National Council for Geographic Education, 1974-1976.

Member, Program Committee, Annual Convention, National Council for Geographic Education, Chicago, Illinois, 1974.

Member, Local Arrangements Committee, Annual Convention, Association of American Geographers, Milwaukee, 1975.

Director, Remote Sensing Institute, National Council for Geographic Education, Chicago, 1974.

Director, Remote Sensing Applications Workshop, Association of American Geographers, Milwaukee, 1975.

Staff Member, Remote Sensing Workshop, Association of American Geographers, New York City, 1976.

Director and Staff Member, Remote Sensing Workshops, Toronto, 1975; San Francisco, 1976; St. Louis, 1977; Mexico City (with DETENAL), 1978; Des Moines, 1979; Milwaukee, 1978; Pittsburgh, 1981.

Chairman, Remote Sensing Committee, National Council for Geographic Education, 1975 to 1983.

Member, Publication Committee, Remote Sensing Specialty Group, Association of American Geographers, 1980 to 1982.

Editor, "Remote Sensing Image of the Month," The Journal of Geography, 1978 to 1983.

General Chairman, William T. Pecora Symposium on Remote Sensing, cosponsored by the Association of American Geographers, the National Council for Geographic Education, and the American Society of Photogrammetry in cooperation with the U.S. Geological Survey and the National Aeronautics and Space Administration, Sioux Falls, South Dakota, 1981.

JEFF ANDERSON

PII Redacted

[redacted]

CAREER OBJECTIVE:

To work with an organization concerned with solving environmental problems. Preferred work would include field and laboratory analysis, data collection, and the evaluation of researched information.

EDUCATION:

Completed course requirements for M.S. degree and am currently working on a thesis. Thesis is concerned with soil development on old lead and zinc mine tailings in southwestern Wisconsin. B.S. degree with honors in Physical Geography, specialization in climatology, was obtained Dec. 1978, from the University of Wisconsin, Madison. Vilas Fellowship Award Sept. 1979-May 1980.

UNDERGRADUATE COURSES

Principals of Macroeconomics
Mans Physical Environment
Weather and Climate
Environmental Conservation
Principals of Cartography
General Geology
Introductory Ecology
Climatology
Quantitative Methods in Geography
Climates of the Continents
Maps and Air Photos
Our Hazardous Environment
Analysis of the Physical Environment
Algebraic Language Programming
Government and Natural Resources
Intro to Statistical Methods
Statistical Methods II

GRADUATE COURSES

Landforms - Topics and Regions
Advanced Landform Geography
Field and Lab Techniques
Hydrogeology
Paleohydrology
Research Methods
Principals of Mineralogy
Soils of the World
Elementary Petrology
Seminar - Physical Geography
General Physics
Soil Morphol, Class, and Mapping

WORK EXPERIENCE:

FACULTY ASSISTANT (Jan. 1980 - Present)
Geography Dept., U.W. Madison
Duties: Assist in the presentation of material for the geography course "Landforms - Topics and Regions". The course topic is fluvial geomorphology and the region is southwestern Wisconsin. Responsibilities include holding informal review sessions, the grading and proctoring of exams, and providing individual assistance to students having difficulty with course material.
Instructor: Prof. James Knox, Chairperson Geography Dept.

TUTOR (Jan. 1981 - May 1981, Jan. 1982 - Dec. 1982, Jan. 1984 - Present)
Duties: Tutor for physical geography courses through the Academic Advancement Program and indirectly through the Veterans Administration.

INFORMATION ANALYST/CODER (July 1983 - Sept. 1983)
Agricultural Economics Dept. and Wisc. Dept. of Revenue
Duties: Work involved the determination of rural land use from farm sales, soil surveys, and air photos to be coded for a computerized agricultural land assessment program.
Supervisors: Pat Strabala (Dept. of Revenue), and Dave Henneberry (Ag. Econ. Dept.).

RESEARCH/FIELD ASSISTANT (Aug. 1981 - Nov. 1981, July 1982 - Oct. 1982)
Geography Dept. and Anthropology Dept.
Duties: Collected floodplain and terrace samples in three southwestern Wisconsin watersheds. Performed lab analysis including particle size distribution, organic matter content, and pH on the collected samples. Projects were concerned with the alluvial histories of the watersheds particularly during the Holocene. In addition, human impacts on river morphology were considered.
Supervisors: Prof. James Knox, and John Penman (Anthropology Dept.).

TEACHING ASSISTANT (Sept. 1980 - Dec. 1980)
Geography Dept.
Duties: Taught two classes (45 students) of an introductory geography course entitled "Physical Systems of the Environment".
Supervisors: Profs. James Knox and Tom Vale

STUDENT HOURLY WORK (Nov. 1977 - May 1978)
Geography Dept.
Duties: Accumulated and quantified precipitation data from stations in the Kickapoo river watershed. Mapped and computed drainage areas at prescribed river cross sections for the Galena river system.
Supervisor: Prof. James Knox

OTHER EXPERIENCE:

AUTO MECHANIC (Nov. 1974 - Sept. 1980)
Sears East Towne
Duties: Performed nearly all automotive service work and specialized in automobile electrics.
Supervisor: Pete Peterson

MILITARY SERVICE U.S. NAVY (Jan. 1971 - Dec. 1972 active duty)
Honorable discharge, graduated from electronics and sonar school June 1971.
Duties: Maintained sonar equipment and stood sonar watches while out at sea.

ACTIVITIES AND INTERESTS:
Ultra long distance running, all physically demanding sports, auto mechanics, piano composition, gardening, and travelling.

PERSONAL DATA:
Single, Age 32, Ht. 5'10", Wt. 160, Eyes Blue, Hair Brown, Date of Birth 10 - 26 - 51, Excellent Health

JOAN E. UNDERWOOD
Hydrogeologist

EDUCATION:

M.S. - Hydrology, University of Idaho,
Moscow, Idaho - 1981

B.S. - Geology, University of Wisconsin-Oshkosh,
Oshkosh, Wisconsin - 1978

EMPLOYMENT HISTORY:

1982 - Present	Donohue & Associates, Inc.
1980 - 1982	Private Consultant
1981 - 1982	University of Wisconsin-Oshkosh
1980 - 1981	Williams-Robinette and Associates, Inc.

AREAS OF SPECIALTY:

Geophysical Studies
Hydrogeologic Studies
Groundwater Contamination

EXPERIENCE:

* Hydrogeologic study using electrical resistivity to determine the extent of groundwater contamination caused by waste disposal in Jamaica.

* Geological study using ground-penetrating radar to delimit ore deposits in Jamaica.

* Archaeological study using ground-penetrating radar to locate potential archaeological site at New Seville, Jamaica.

* Geologic reconnaisance for an ash disposal site using electrical resistivity to determine depth to bedrock and estimated amount of fine grained soils near Wausau.

* Field geologist for hydrogeologic study to determine groundwater flow characteristics and contaminant migration at the Joliet Army Ammunition Plant.

* Hydrogeologic study for confidential client to determine extent and source of groundwater contamination and groundwater flow characteristics in the water table aquifer. Responsibilities included well placement and design, determining aquifer characteristics through pump tests, and groundwater modeling.

* GPR demonstration to determine the response and application of GPR for landfill siting.

* Hydrogeologic reconnaissance study to determine municipal water supply potential near Norway, Michigan.

* Surface geophysical and hydrologic study to define potential groundwater producing zones for irrigation wells near Frenchglen, Oregon.

* Field director for surface geophysical and hydrologic study to determine possible groundwater contamination from hazardous waste disposal at nine sites in West Virginia.

* Determination of groundwater supply potential for domestic wells near Moscow, Idaho.

* Analysis and comparison of laboratory chemical and resistivity data with field resistivity data for the calibration of resistivity equipment.

* Conducted surface geophysical study on a tailings impoundment to determine if direct current electrical surveying could delineate the water table in the embankment for the U.S. Bureau of Mines, Spokane Mining Research Section.

* Designed and conducted the Idaho Surface Impoundment Assessment to inventory all waste disposal storage and treatment surface impoundments in mining, industrial, municipal, and agricultural activities. Evaluations were conducted as to the groundwater and surface water contamination potential of the impoundments.

* Field director for a resistivity study to delineate contacts between basalt flows and lake sediments forming the Snake Plain Aquifer near Blackfoot, Idaho, for the Department of Interior, Water, and Power Resources Division.

* Conducted surface geophysical reconnaissance study for detecting groundwater contamination from uranium waste disposal at depth (50-200 meters) at the Dawn Tailings disposal site, Ford, Washington.

MEMBERSHIPS:

Society of Exploration Geophysicists

PRESENTATIONS AND PUBLICATIONS:

"Assessment of Groundwater Contamination from Surface Impoundments in Idaho," coauthored with M. Robinette. Proceedings from the Eighteenth Annual Engineering Geology and Soils Engineering Symposium, Boise, Idaho.

"Geoelectric Investigations at the ASARCO Tailings Impoundment, Osburn, Idaho," coauthored with M. Robinette, Idaho Mining and Minerals Resources Research Institute, Final Report to the U.S. Bureau of Mines, 1981.

"Electrical Resistivity Investigations at the Dawn Tailings Disposal Site, Ford, Washington," coauthored with M. Robinette and R. Williams (advisory capacity), 1980.

"Resistivity and Seismic Investigation Near Norway, Michigan, for a Municipal Water Supply" coauthored with C.J. Laudon and T.F. Laudon. Proceedings from the American Water Resources Association, Wisconsin Section, Seventh Annual Meeting, 1983.

President, Wisconsin Council for Geographic Education, 1978.

George J. Miller Distinguished Service Award, National Council for Geographic Education, 1976.

Outstanding Educators of America, 1974-1975 and 1975-1976.

Uhrig Award for Excellence in Teaching, 1970.

President, National Council for Geographic Education, 1969.

Fellow and Member of the Council, American Association for the Advancement of Science, 1968-1970.

Waukesha County Conservation Alliance Annual Award, 1961.

Science Faculty Fellowship, National Science Foundation, 1958-1959.

Danforth Teacher Study Grant, 1955-1956.

Editor, Remote Sensing Quarterly, Remote Sensing Applications Laboratory, University of Nebraska at Omaha, 1978 to 1983.

Secretary, Wisconsin Council for Geographic Education, 1960-1961.

Editor, Bulletin, Wisconsin Council for Geographic Education, 1961-1968.

President, Wisconsin Council for Conservation Education, 1962-1963.

Member, Wisconsin State Conservation Curriculum Committee, State Department of Public Instruction, 1959-1963.

Treasurer, International Loan Fund, Gamma Theta Upsilon, 1962-1980.

Member, Executive Board, National Council for Geographic Education, 1964-1972.

Conservation Education Committee, Soil Conservation Society of America, 1964-1972.

Member, Wisconsin State Aero-Space Committee, State Department of Public Instruction, 1963-1968.

Second Vice President, National Council for Geographic Education, 1966-1967.

First Vice President, National Council for Geographic Education, 1967-1968.

Program Chairman, Annual Convention, National Council for Geographic Education, Kansas City, Missouri, 1968.

Recipient of Presidential Citation for meritorious service in Remote Sensing, American Society of Photogrammetry, March 1982.

"Jamaica On Early Maps," The Journal of Geography, September, 1983 (in press).

PRESENTATIONS AND PUBLICATIONS:

Publications:

"Application of Remote Sensing Techniques to Environmental Monitoring," Pennsylvania Geographer, Vol. 20, No. 4, 1982, pp. 1-7.

Application of Remote Sensing to Surface Mining," Jamaica Journal of Geology, September, 1982.

"Application of Aerial Thermography to Determine Physical States in Wildlife," Proceedings, Pecora VII Symposium, 1981, pp. 600-603 and 609.

"Early Perceptions of Wetlands in the Wisconsin Drift Area of Indiana," Abstracts, Association of American Geographers, 1980, p. 20.

"Remote Sensing - Southeastern Wisconsin," The Journal of Geography, Vol. 78, pp. 158-160.

"Classroom/Laboratory Applications of Remote Sensing," Notes: Remote Sensing Workshop, Association of American Geographers, April 1979, Philadelphia, pp. 109-121.

Laboratory Manual for Introduction to Remote Sensing of the Environment (Author/Editor), Kendall/Hunt Publishing Co., Dubuque, Iowa, 1978, and Second Edition, 1983.

Introduction to Remote Sensing of the Environment (Editor), Kendall/Hunt Publishing Company, Dubuque, Iowa, 1978, and Second Edition, 1983.

"Remote Sensing: An Overview," Chapter 1, Introduction to Remote Sensing of the Environment, Kendall/Hunt Publishing Company, Dubuque, Iowa, 1978, pp. 1-13, and Chapter 1, Second Edition, pp. 2-15.

"Landsat Platforms, Systems, Images, and Image Interpretation," Introduction of Remote Sensing of the Environment, Kendall/Hunt Publishing Company, Dubuque, Iowa, 1978, pp. 169-195, and Chapter 7, Second Edition, 1983, pp. 130-166.

"NCGE Remote Sensing Workshop," Remote Sensing of the Electro-Magnetic Spectrum, Vol. 4, No. 2, April 1977, pp. 5-7.

"AAG Remote Sensing Workshop," Remote Sensing of the Electro-magnetic Spectrum, Vol. 4, No. 4, October 1976, pp. 4-11.

Atlas of Cultural Features, Hubbard Press, Northbrook, Illinois, 1972, 96pp.

"The Audio-Visual-Tutorial Method in Geography Education," Chapter 27, Developmental Efforts in Individualized Learning, Edited by R.A. Weisgerber, Peacock Publishers, Itasca, Illinois, 1971, pp. 326-331.

"Media Institute on Geographic Concepts Associated with Field Studies," The Journal of Geography, February 1970.

"Teaching Geography by the Audio-Visual-Tutorial Method," Audiovisual Instruction, Vol. 15, February 1970, pp. 41-44.

Geography Via the Audio-Visual-Tutorial Method, National Council for Geographic Education, Chicago, Illinois, 1969, 49pp.

"Field Trips and Field Work: Utilizing the Geographer's Natural Laboratory," Audiovisual Instruction, Vol. 11, May 1966, pp. 361-365.

"Topographic Mapping," Wisconsin Academy Review, Vol. 21, 1965, pp. 14-16.

Geography Via Aerial Field Trips (with Carl E. Guell) National Council for Geographic Education, 1965, 40pp.

"Geographers-Farmers Study Conservation from the Air," Soil Conservation, Vol. 28, June 1963, pp. 250-251.

"Wetland Transformation in the Wisconsin Drift Area of Indiana," Proceedings of the Indiana Academy of Science, Vol. 69, 1960, pp. 290-299.

"Britain's Groundnut Scheme in East Africa," The Journal of Geography, April 1951, pp. 150-158.

"Remote Sensing and Cultural Resource Management," Association of American Geographers, Denver, Colorado, April 26, 1983.

"Ground Penetrating Radar for Strip Coal Mining Exploration," Association of American Geographers, Terre Haute, Indiana, October 8, 1982.

(A total of 56 publications, a selection of which appears above.)

Presentations:

"Application of Thermography to Wildlife Physical Stress," Proceedings, Pecora VII Symposium, American Society of Photogrammetry, 1981 (in press).

"Applications of Remote Sensing in Geographic Studies," National Council for Geographic Education, Chicago, Illinois, October 1974.

"The Audio-Visual-Tutorial Method Applied to Remote Sensing Education," Rust College, Holly Springs, Mississippi, August 1974.

"A New Era in Science with Remote Sensing," Wingspread, Wisconsin, September 1972.

"Aerial Photographs and Map Correlations," Michigan State University, July 1968.

"The Values and Applications of Field Work in Geographic Education," Michigan State University, June 1967.

"The Nature of Field Geography," National Council for Geographic Education, Los Angeles, California, November 1966.

"The Geographer's Roles in Aerial Photograph Interpretation," Wayne State University, Detroit, Michigan, April 1965.

"New Methods in Aerial Photograph Interpretation," Michigan State University, February 1966.

"The Dimensions of Geomorphology," University of Minnesota, November 1964.

"Regional Geographic Problems in the Fox River Watershed," Wisconsin Academy of Sciences, Arts and Letters, Wausau, Wisconsin, May 1964.

"Watershed Planning," Wisconsin Society of Professional Engineers, Madison, Wisconsin, January 1963.

"Data Before Dams," Fox River Watershed Planning Conference, Madison, Wisconsin, November 1962.

"Conservation Philosophy," Governor's Conference on Resource Use Education, Madison, Wisconsin, September 1962.

"Fossil Soils," Wisconsin Geological Society, Milwaukee, Wisconsin, September 1961.

"Conservation Education in Wisconsin Colleges," Wisconsin Academy of Sciences, Arts and Letters, May 1961.

"Wetlands and Land Drainage in Northern Indiana," Wisconsin Academy of Sciences, Arts and Letters, May 1960.

(Since 1960, 61 presentations before professional societies.)

Professional Listings:

American Men of Science, 9th and 10th Editions

Who's Who in the Midwest

Who's Who in American Education, Vol. 19 and 22

Leaders in American Science, 1962-1963

International Scholars Directory, Strasbourg, France, 1973

Personalities of the West and Midwest, 1972

Contemporary Authors, Brooks Institute, 1973

Who's Who in America, 38th and 39th Editions

Outstanding Educators of America, 1974-1975

The World of Who's Who of Authors, Cambridge, England, 1975

Wisconsin Men of Achievement, 1976

Men of Achievement, 1977

International Authors and Writers Who's Who, 1977 and 1979

Dictionary of International Biography, 1976-1977

REFERENCES CITED

BARNHARDT, MICHAEL L, et al
1982 Preliminary Cultural Resource Survey and Geomorphology Assessment of selected Areas in Navigation Pool 16, Mississippi River. Report Submitted to Rock Island District, Corps of Engineers. Illinois State University, Midwestern Archaeological Research Center.

BETTIS, A.E. and DEAN M. THOMPSON
1981 Holocene Landscape Evolution in Western Iowa: Concepts, Methods and Implications for Archaeology. In: Current Directions in Midwestern Archaeology , S. Anfinson, Ed. Occasional Publications in Minnesota Anthropology No. 9.

BOSZHARDT, ROBERT
1982 Archaeological Investigations in the Lowland Floodplain of Navigation Pool 10 near Prairie du Chien, Carwaford County, Wisconsin. Unpublished master's thesis, UW-Madison.

CHURCH, PETER, and LAWSON SMITH
1982 Geomorphology of Navigation Pool 10. Experimental Waterways Station, U.S. Army Corps of Engineers. Report submitted to St. Paul District, U.S. Army Corps of Engineers.

FLOCK, MARK A.
1982 The Late Wisonsinan Savanna Terrace in Tributaries to the Upper Mississippi River. Quaternary Research, Vol. 20 (2): 165-176.

HENNING, ELIZEBETH
1982 Implementation of the Resource Protection Planning Process in Iowa. (Draft form), copy on file, Iowa State Historical Department, Division of Historic Preservation.

GEIER, CLARENCE and MICHAEL K. LOFTUS
1975 Settlement Data from the Lower Big Platte and Platte Rivers and Adjacent Sections of the Mississippi River Bottom. The Wisconsin Archeologist, Vol. 56: 78-151.

HOTOPP, JOHN (ed.)
1977 Iowa's Great River Road, Vol. 2: Archaeology, Geology, and Natural Areas, A Preliminary Survey. Office of the State Archaeologist, Iowa City.

LOGAN, WILFRED D.
1976 Woodland Complexes in Northeastern Iowa. Publications in Archaeology No. 15. U.S. Department of The Interior, National Park Service, Washington, D.C.

OVERSTREET, DAVID F., ROBERT P. FAY, and CAROL I. MASON
1982 Cultural Resources Literature Search and Records Review-Upper Mississippi River Basin. GLARC, INC., Reports of Investigations No. 116. 12 Volumes. Waukesha, WI.

OVERSTREET, DAVID F. and ROBERT BOSZHARDT (senior author)
1982 Preliminary Survey and Sediment Geomorphology, Navigation Pool 12. GLARC, INC. Reports of Investigations No. 123.

OVERSTREET, DAVID F.
1983 Intensive Survey at 11-Jd-126, Jo Daveiss County, Illinois. GLARC, INC., Reports of Investigations No. 125.

1984 Cultural Resources Investigations, Navigation Pool 10, Upper Mississippi River Basin. GLARC, INC., Reports of Investigations No. 138.

PENMAN, JOHN T.
1980 Archaeology of The Great River Road: site survey in Buffalo, Pepin, and Pierce Counties. Wisconsin Department of Transportation, Archaeological Report 3. Madison.

1981 Archaeology of The Great River Road: survey and testing in Buffalo, Pepin, and Pierce Counties. Wisconsin Department of Transportation, Archaeological Report 5. Madison.

STOLTMAN, JAMES B. et al
1982 Summary Report of survey and test excavation in the Prairie du Chien Region, the 1980-81 investigations. Report submitted to State Historical Society, Historic Preservation Division, Madison.

STOLTMAN, JAMES B.
1983 Ancient Peoples of the Upper Mississippi River Valley. In: Historic Lifestyles in the Upper Mississippi River Valley, J. Wozniak, Ed. University Press of America. N.Y.

THELER, JAMES L.
1983 Woodland Tradition Economic Strategies: Animal Resource Utilization in Southwestern Wisconsin and Northeastern Iowa. Unpublished Ph.D. dissertation. University of Wisconsin-Madison.

APPENDIX D

Lot Check Lists

Materials and records curated at Great Lakes Archaeological Research Center, Inc., 7509 Harwood Avenue, Wauwatosa, WI 53213, (414) 259-6020, (414) 259-6021

LOT CHECK LIST

Lot Number 1 Site Name _____

Feature Number _____ Site Number 47 Gt 410

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/15/84

Associations _____

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock 1 flat water rolled pebble

Bone _____

Charcoal _____

Historic 4 rust encrusted square nails (one clinched); 1 curved shard of blue grass

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/26/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 2 Site Name Dewey Creek

Feature Number _____ Site Number _____

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/16/84

Associations _____

CONTENTS:

Ceramics 1 thin cord marked Woodland sherd

Lithics 2 large chunks of chert; 1 retouched chert flake; 130 chert flakes (most are heat treated)

Rough Rock 2 pieces burned limestone; 1 large cobble with areas of polish; 1 hammerstone; 2 hammerstone spalls (?)

Bone _____

Charcoal _____

Historic 1 triangular silver "pendant"; 1 barrel strap fragment; 1 unident metal fragment; 2 shards of curved green glass; 1 piece of mortor (?); 1 piece of coal; 3 hinge portions from fresh water mussels.

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 3 Site Name Dietrich Dam

Feature Number _____ Site Number 47 Gt 412

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/16/84

Associations _____

CONTENTS:

Ceramics 2 thick sandy paste cordmarked sherds; 1 thin cordmarked sherd; 1 exfoliated sherd

Lithics 7 projectile point fragments; 1 side notched point retouched into a drill; 9 bifaces (whole & frag.); 5 retouched flakes; 235 chert flakes.

Rough Rock 5 hammerstones, 2 water rolled; 3 pieces burned limestone.

Bone _____

Charcoal _____

Historic 2 shards of white chinaware; 1 stoneware bottle base; 1 kaolin pipebowl fragment; 1 horseshoe; 3 shards of light blue-green curved glass.

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 4 Site Name _____

Feature Number _____ Site Number 13 Ct 211

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/17/84

Associations _____

_____

CONTENTS:

Ceramics _____

_____

Lithics _____

_____

Rough Rock _____

Bone _____

Charcoal _____

Historic 3 shards of white chinaware; 1 burned crockery shard; 1 railroad spike; 9 pieces barbed wire; 3 staples; 2 stove part fragments; 2 unident metal frag.; 1 cut "soupbone"; cylindrical lead net weight.

Other _____

_____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

_____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 5 Site Name Ackerman Cut

Feature Number _____ Site Number 13 Ct 210

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/20/84

Associations Woodland sherds recovered in situ, chert biface found on narrow foreshore below silty bank, charcoal from same horizon 14 meters downstream.

CONTENTS:

Ceramics From single Late Woodland vessel: 11 rimsherds and 16 body sherds

Lithics 1 crude chert biface fragment

Rough Rock _____

Bone _____

Charcoal small bag of charcoal samples from possible hearth

Historic _____

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 6 Site Name _____

Feature Number _____ Site Number 47 Gt 413

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/22/84

Associations small shell midden

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic _____

Other 6 hinges from freshwater mussels

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 7 Site Name Fiddler's Point

Feature Number _____ Site Number 13 Ct 213

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected _____

Associations Extensive button blank midden

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic 1 rectangualr clear glass bottle; 1 shard of clear glass; 1 crockery shard; 1 scythe blade; 2 metal files; 1 horseshoe; 1 long iron bar, 13 shell btton blanks, 8 mussel shells (hinge portions)

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 8 Site Name _____

Feature Number _____ Site Number 13 Ct 214

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 9/12/84

Associations _____

_____

CONTENTS:

Ceramics _____

_____

Lithics 1 chert flake

_____

Rough Rock _____

Bone _____

Charcoal _____

Historic _____

_____

_____

Other _____

_____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

_____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 9 Site Name _____

Feature Number _____ Site Number 13 Ct 215

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 9/12/84

Associations _____

CONTENTS:

Ceramics _____

Lithics 1 heat treated chert flake

Rough Rock _____

Bone _____

Charcoal _____

Historic 1 piece of coal, 7 coal clinkers

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 10 Site Name _____

Feature Number _____ Site Number 13 Ct 216

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 9/12/84

Associations _____

_____

CONTENTS:

Ceramics _____

_____

Lithics _____

_____

Rough Rock _____

Bone 1 burned longbone fragment

Charcoal _____

Historic 4 rust encrusted metal fragments, one resembles a jar lid;

1 freswater mussel shell; 1 unident charred piece (slag)?

_____

Other _____

_____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

_____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 11 Site Name _____

Feature Number _____ Site Number 47 Gt 414

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/15/84

Associations Small shell midden

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic 7 freshwater mussel shells

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 12 Site Name _____

Feature Number _____ Site Number 13 Ct 217

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 9/1984

Associations _____

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic 2 shards from a large crockery vessel; 1 rusted piece barbed wire

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/26/84 Date 11/26/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 13 Site Name _____

Feature Number _____ Site Number 47 Gt 415

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 5/1984

Associations _____

_____

CONTENTS:

Ceramics _____

_____

Lithics 1 heat treated chert flake _____

_____

Rough Rock _____

Bone _____

Charcoal _____

Historic 1 spent lead slug _____

_____

_____

Other _____

_____

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

_____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 14 Site Name _____

Feature Number _____ Site Number 13 Ct 218

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 5/1984

Associations Guttenberg public use area, Tract No. FIA-122

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic 8 shards of glass including: 3 bottle necks, 1 buff colored clay pipe fragment (lower stem, elbow) and part of bowl; 1 buckel; 1 snuff can lid; 3 shell button blanks

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 15 Site Name

Feature Number Site Number 47 Gt 416

Horizontal Location Meters N S Meters E W

Vertical Location Surface Cm. below Surface. Date Collected 5/17/84

Associations Furnace Branch Public Use Area, Tract No. FW-262

dredge spoil

CONTENTS:

Ceramics

Lithics 1 chunk of chert; 4 chert flakes; 5 chert shatter; 2 broken chert bifaces (one heat treated)

Rough Rock 1 piece burned limestone

Bone

Charcoal

Historic 1 piece melted glass, glass slag (?)

Other 6 hinge portions of fresh water mussel shells; 1 shell fragment without hinge

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS:

Soil Description

Associations

Collected By Date

Sorted By Date

LOT CHECK LIST

Lot Number 16 Site Name Kleinpell Pines

Feature Number _____ Site Number 47 Gt 417

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location _____ Cm. below Surface. Date Collected 5/29/84

Associations Recovered by surface collection and expanded shovel tests (contents of 3 expanded shovel tests); Furnace Branch Public Use Area Tract No. FW-262

CONTENTS:

Ceramics 2 plain Woodland sherds

Lithics 10 chert flakes; 1 Kramer point made of heat treated chert

Rough Rock 1 fire cracked (?) water rolled

Bone _____

Charcoal _____

Historic _____

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 17 Site Name _____

Feature Number _____ Site Number 47 Gt 419

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 10/10/84

Associations _____

CONTENTS:

Ceramics _____

Lithics 4 chert flakes, 3 chert shatter, 1 flat chert chunk

Rough Rock 1 water rolled cobble (hammerstone ?)

Bone 1 piece burned bone

Charcoal _____

Historic _____

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 18 Site Name _____

Feature Number _____ Site Number 47 Gt 420

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/22/84

Associations _____

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic 1 base to an Orange Crush bottle; 2 shards of a large glass water jug (?); 1 other glass bottle shard; 1 metal cigarette case with top missing.

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 19 Site Name Big Pond

Feature Number _____ Site Number 13 Ct 219

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 10/13/84

Associations Includes flakes found with bucket auger in laminated sands (in plastic bag)

CONTENTS:

Ceramics _____

Lithics 9 chert flakes, 4 chert shatter

Rough Rock 1 tiny piece burned limestone, 1 water rolled pebble

Bone _____

Charcoal _____

Historic 1 shard of white chinaware, 1 red clay brick

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 20 Site Name _____

Feature Number _____ Site Number 13 Ct 220

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 10/14/84

Associations _____

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic 1 red clay brick fragment; 1 piece of mortor; blue-green and white marbled enamel ware tea kettle fragment; 3 fresh water mussel shells (hinge portions); 1 shell button blank

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 21 Site Name _____

Feature Number _____ Site Number 47 Gt 421

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected _____

Associations _____

CONTENTS:

Ceramics _____

Lithics 1 chert stemmed biface reworked into a drill

Rough Rock _____

Bone _____

Charcoal _____

Historic 1 rust encrusted nail; 4 whole fresh water mussel shells from small midden; 2 water rolled brick fragments; 1 curved shard of glass; 2 metal fragments; 2 brown glazed earthenware shards; 2 coal clinkers, 1 piece slag

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/27/84 Date 11/27/84 Date 11/27/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 22 Site Name Henkels

Feature Number _____ Site Number 13 Db 345

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected _____

Associations _____

CONTENTS:

Ceramics _____

Lithics 5 chert shatter; 1 crude biface, 30 chert flakes

Rough Rock 1 burned limestone

Bone 1 burned bone fragment

Charcoal _____

Historic _____

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 23 Site Name _____

Feature Number _____ Site Number 47 Gt 422

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/22/84

Associations _____

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic 7 shards from a single white chinaware plate; 3 chunks of mortor

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 24 Site Name _____

Feature Number _____ Site Number 13 Ct 221

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected _____

Associations _____

_____

CONTENTS:

Ceramics _____

_____

Lithics _____

_____

Rough Rock _____

Bone _____

Charcoal _____

Historic 1 white chinaware serving dish (borken)

_____

_____

Other _____

_____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

_____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 25 Site Name _____

Feature Number _____ Site Number Not assigned

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location _____ Cm. below Surface. Date Collected _____

Associations About 150 meters upstream from 13 Ct 210

bird humerous from soreshore; charcoal from 120 cm. B5

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone 1 bird humerous

Charcoal A small box of charcoal

Historic _____

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 26 Site Name _____

Feature Number _____ Site Number Not assigned

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/22/84

Associations Foreshore ca. 400 meters south of the mouth of Muddy Creek

CONTENTS:

Ceramics _____

Lithics 1 chunk of chert (burned or weathered from rip-rap) ?

Rough Rock 2 pieces burned limestone

Bone _____

Charcoal _____

Historic _____

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 27 Site Name _____

Feature Number _____ Site Number _____

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 10/14/84

Associations Foreshore of south tip of island north of the mouth of Ackerman Cut

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock 1 burned piece of limestone

Bone _____

Charcoal _____

Historic _____

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 28 Site Name _____

Feature Number _____ Site Number _____

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location _____ Cm. below Surface. Date Collected _____

Associations Charlie Brown Atlas Site, Map code No. _____

_____

CONTENTS:

Ceramics _____

_____

Lithics 1 possible utilized chert flake _____

_____

Rough Rock _____

Bone _____

Charcoal _____

Historic _____

_____

_____

Other 1 hinge portion of a fresh water mussel shell _____

_____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

_____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 29 Site Name _____

Feature Number _____ Site Numb r Not assigned

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 9/14/84

Associations 200 meters south of 13 Ct 220 on cutbank

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic 1 sample from a dumped pile of tar or asphalt

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 30 Site Name _____

Feature Number _____ Site Number Not assigned

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location Surface Cm. below Surface. Date Collected 8/16/84

Associations Foreshore due west of the mouth of Dewey Creek

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone Longbone Fragment (tooth marks on one end)

Charcoal _____

Historic _____

Other _____

Washed By JC Sorted By JC Labeled By JC

Date 11/28/84 Date 11/28/84 Date 11/28/84

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

LOT CHECK LIST

Lot Number 31 Site Name _____

Feature Number _____ Site Number _____

Horizontal Location _____ Meters N S _____ Meters E W _____

Vertical Location 350.00 Cm. below Surface. Date Collected 6/20/84

Associations Seed taken from core sample at the Jamestown Recreation Area A-3

CONTENTS:

Ceramics _____

Lithics _____

Rough Rock _____

Bone _____

Charcoal _____

Historic _____

Other 1 seed (identifiable)

Washed By _____ Sorted By JC Labeled By _____

Date _____ Date 12/17/84 Date _____

FLOTATION INVENTORY

CONTENTS: _____

Soil Description _____

Associations _____

Collected By _____ Date _____

Sorted By _____ Date _____

APPENDIX D

Project Correspondence

ILLINOIS ARCHAEOLOGICAL SURVEY

109 DAVENPORT HALL | UNIVERSITY OF ILLINOIS 607 SOUTH MATHEWS AVENUE | URBANA, ILLINOIS 61801

Cooperating Institutions:
University of Illinois
Southern Illinois University
Illinois State Museum

June 1, 1984

Dr. David F. Overstreet
Great Lakes Archaeological Research Center, Inc.
7509 West Harwood Avenue
Wauwatosa, Wisconsin 53213

Dear Dave:

According to the guidelines of the Illinois Archaeological Survey Site File Access Policy we are able to provide you with site information from former Historic Site Survey Part 1 Summary Reports, or data from Predictive Model Studies Reports. Such information can also be obtained from the Illinois Department of Conservation. We are also able to provide you (with approval of the Site File Access Committee) site density data in which the density units are no smaller than 1 square mile.

Please adivse me further as to which of these types of information you desire. I will also need to know the location of Pool 11 in the Upper Mississippi River Basin. In the meantime I will send a copy of your correspondence and this letter to the Site File Access Committee.

Cordially yours,

Charles J. Bareis
Secretary-Treasurer

cc: Site File Access Committee

CJB/ms

THE STATE HISTORICAL SOCIETY OF WISCONSIN
1846

MUSEUMS DIVISION
Accredited by the American Association of Museums

May 31, 1984

Dr. David F. Overstreet
Great Lakes Archaeological Research
Center, Inc.
7509 Harwood Avenue
Wauwatosa, Wisconsin 53213

Dear Dave,

Records in my office will be made available to Mr. Robert Fay to conduct an archives and literature compilation for your investigation in Navigation Pool 11 for the Rock Island District, U.S. Army Corps of Engineers under Contract DACW25-84-0014.

We require researchers using the Wisconsin Archeological Code File and the Charles E. Brown Manuscripts, the records housed in my office, to sign in and keep all records in original order. I would appreciate a few days advance notice from Mr. Fay so that I can arrange for space for him to work. Records can not be removed from my office except for xeroxing which must be done in the State Historical Society building.

Thank you for notifying me of this project.

Sincerely,

Dr. Joan E. Freeman
State Archeologist

JEF:lkr

Great Lakes Archaeological Research Center, Inc.

Cultural Resource Management

7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

May 24, 1984

Mr. William Green
Historic Preservation Division
S.H.S.W.
816 State Street
Madison, Wisconsin 53706

Dear Bill:

Great Lakes Archaeological Research Center, Inc. has recently initiated a cultural resource and geomorphological investigation in Navigation Pool 11 of the Upper Mississippi River basin. The work is to be conducted for the Rock Island District, U.S. Army Corps of Engineers under the auspices of Contract No. DACW25-84-0014.

One of our responsibilities is to conduct an archives and literature compilation. As a result, I am requesting your cooperation in order to review information housed at your office. Please advise regarding procedures related to use of such records or archives at your office.

Mr. Robert Fay will be conducting the literature and archives investigations and he will be contacting you regarding scheduling of his research. Finally, should you or your staff have particular interest or concerns you may wish us to address, I would appreciate your input and would like to express our willingness to cooperate in any way we can. Thank you for your consideration.

Sincerely,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos
cc. Mr. Robert P. Fay
Mr. Charles Smith

Great Lakes Archaeological Research Center, Inc.

Cultural Resource Management

7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

May 24, 1984

Dr. Joan E. Freeman
State Archaeologist
S.H.S.W.
816 State Street
Madison, Wisconsin 53706

Dear Joan:

Great Lakes Archaeological Research Center, Inc. has recently initiated a cultural resource and geomorphological investigation in Navigation Pool 11 of the Upper Mississippi River basin. The work is to be conducted for the Rock Island District, U.S. Army Corps of Engineers under the auspices of Contract No. DACW25-84-0014.

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Sincerely,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos
cc. Mr. Robert P. Fay
Mr. Charles Smith

Great Lakes Archaeological Research Center, Inc.

Cultural Resource Management

7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

May 24, 1984

Dr. Adrian Anderson
Office of Historic Preservation
State Historical Building
East 12th & Grand
Des Moines, IA 50319

Dear Adrian:

Great Lakes Archaeological Research Center, Inc. has recently initiated a cultural resource and geomorphological investigation in Navigation Pool 11 of the Upper Mississippi River basin. The work is to be conducted for the Rock Island District, U.S. Army Corps of Engineers under the auspices of Contract No. DACW25-84-0014.

One of our responsibilities is to conduct an archives and literature compilation. As a result, I am requesting your cooperation in order to review information housed at your office. Please advise regarding procedures related to use of such records or archives at your office.

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Sincerely,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos
cc. Mr. Robert P. Fay
Mr. Charles Smith

Great Lakes Archaeological Research Center, Inc.

Cultural Resource Management

7509 WEST HARWOOD AVENUE
WAUWATOSA WISCONSIN 53213
(414) 259-6020

May 24, 1984

Mr. Charles J. Bareis
Illinois Archaeological Survey
109 Davenport Hall
University of Illinois-Urbana
Urbana, IL 61801

Dear Charles:

Great Lakes Archaeological Research Center, Inc. has recently initiated a cultural resource and geomorphological investigation in Navigation Pool 11 of the Upper Mississippi River basin. The work is to be conducted for the Rock Island District, U.S. Army Corps of Engineers under the auspices of Contract No. DACW25-84-0014.

One of our responsibilities is to conduct an archives and literature compilation. As a result, I am requesting your cooperation in order to review information housed at your office. Please advise regarding procedures related to use of such records or archives at your office.

Mr. Robert Fay will be conducting the literature and archives investigations and he will be contacting you regarding scheduling of his research. Finally, should you or your staff have particular interest or concerns you may wish us to address, I would appreciate your input and would like to express our willingness to cooperate in any way we can. Thank you for your consideration.

Sincerely,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos
cc. Mr. Robert P. Fay
Mr. Charles Smith

Great Lakes Archaeological Research Center, Inc.

Cultural Resource Management

7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

May 24, 1984

Mr. John T. Penman
Museum Division
S.H.S.W.
816 State Street
Madison, WI 53706

Dear John:

Great Lakes Archaeological Research Center, Inc. has recently initiated a cultural resource and geomorphological investigation in Navigation Pool 11 of the Upper Mississippi River basin. The work is to be conducted for the Rock Island District, U.S. Army Corps of Engineers under the auspices of Contract No. DACW25-84-0014.

One of our responsibilities is to conduct an archives and literature compilation. As a result, I am requesting your cooperation in order to review information housed at your office. Please advise regarding procedures related to use of such records or archives at your office.

Mr. Robert Fay will be conducting the literature and archives investigations and he will be contacting you regarding scheduling of his research. Finally, should you or your staff have particular interest or concerns you may wish us to address, I would appreciate your input and would like to express our willingness to cooperate in any way we can. Thank you for your consideration.

Sincerely,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos
cc. Mr. Robert P. Fay
Mr. Charles Smith

Great Lakes Archaeological Research Center, Inc.
Cultural Resource Management
7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

May 24, 1984

Dr. Duane Anderson
Iowa State ARchaeologist
Eastlawn
Iowa City, IA 52242

Dear Duane:

Great Lakes Archaeological Research Center, Inc. has recently initiated a cultural resource and geomorphological investigation in Navigation Pool 11 of the Upper Mississippi River basin. The work is to be conducted for the Rock Island District, U.S. Army Corps of Engineers under the auspices of Contract No. DACW25-84-0014.

One of our responsibilities is to conduct an archives and literature compilation. As a result, I am requesting your cooperation in order to review information housed at your office. Please advise regarding procedures related to use of such records or archives at your office.

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Sincerely,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos
cc. Mr. Robert P. Fay
Mr. Charles Smith

Great Lakes Archaeological Research Center, Inc.

Cultural Resource Management

7509 WEST HARWOOD AVENUE
WAUWATOSA WISCONSIN 53213
(414) 259-6020

May 21, 1984

Mr. Bob Howard
United States Fish & Wildlife Service
Room 101
51 East 4th Street
Winona, MN 55987

Dear Mr. Howard:

Great Lakes Archaeological Research Center, Inc. will again be conducting cultural resource and geomorphological investigations in the Upper Mississippi River Basin in 1984. Specifically, our investigations will be sited in Navigation Pools 10 and 11. The Pool 10 work will be conducted under the auspices of Contract No. DACW37-82-M-2078 and the Pool 11 work under contract No. DACW25-84-R-0014. At this juncture, it appears that work will have to be scheduled around fluctuations in water levels in the pools and will likely be in effect until winter of 1984-85.

Our staff has already contacted the Cassville District to inform them of our forthcoming work and established means to coordinate our schedules with any needs of the District Manager. This communication will serve as a formal request for issuance of a Special Use Permit to conduct work under my supervision and direction. If possible, it would be most advantageous for us to operate under a single permit. However, if this is inconsistent with your procedures, please advise. Should you need additional information please contact me, Mr. David Berwick at the St. Paul District, Corps of Engineers, or Mr. Charles Smith, Rock Island District, Corps of Engineers. Thank you for your cooperation.

Sincerely,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service

Upper Mississippi National Wildlife Refuge

SPECIAL USE PERMIT

Permit number	Sta. No. to be credited
789-1984	32575

Contract number

Date: 6-12-84

Permittee (Name and address)

Dr. David F. Overstreet
Great Lakes Archaelogical Research Center, Inc.
7509 West Harwood Ave.
Wauwatosa, Wisconsin 53213

Period of use (inclusive)

From 6-12 19 84

To 12-31 19 84

Purpose (Specify in detail privilege requested, or units of products involved)

Conduct cultural resource investigations under Contracts No. DACW37-82-M-2078 and DACW25-84-R-0014 in Pools 10 and 11 respectively.

Description (Specify unit numbers; metes and bounds; or other recognizable designations)

Upper Mississippi River National Wildlife and Fish Refuge lands in Pools 10 and 11.

Amount of fee $ None **if not a fixed fee payment, specify rate and unit of charge:** _____

☐ **Full payment**

☐ **Partial payment- Balance of payments to be made as follows:**

Record of Payments

N/A

Special Conditions

1. This permit is valid for all persons working under supervision of the permittee. A copy should be in possession of workers while on the Refuge.
2. Permittee will advise the Cassville District Manager of specific work locations and schedules.

This permit is issued by the U.S. Fish and Wildlife Service and accepted by the undersigned, subject to the terms, covenants, obligations, and reservations, expressed or implied herein, and to the conditions and requirements appearing on the reverse side.

Permittee (Signature) David F. Overstreet

Issuing Officer (Signature and title) [signature] District Manager

FORM 3-1383
(REV. 11/82)

The University of Iowa
Iowa City, Iowa 52242

Office of the State Archaeologist
Eastlawn

(319) 353-5175, 353-5177

June 12, 1984

Dr. David Overstreet
Great Lakes Archaeological Research Center, Inc.
7509 W. Harwood Avenue
Wauwatosa, Wisconsin 53213

Dear David:

We will be glad to assist you in any way we can as you work on the Mississippi Navigation Pool 11 project.

Please contact Deb Zieglowsky to set up an appointment. She is responsible for the site records and she can have everything ready for you if she has advance notice of your arrival. She can be reached here (319) 353-5175 during office hours.

I look forward to meeting Mr. Fay.

Sincerely,

Duane C. Anderson
State Archaeologist

DCA:bh

IOWA STATE HISTORICAL DEPARTMENT
OFFICE OF HISTORIC PRESERVATION

ADRIAN D. ANDERSON, Executive Director
STATE HISTORIC PRESERVATION OFFICER

June 12, 1984

Dr. David F. Overstreet, PhD.
Principal Investigator
Great Lakes Archaeological Research Center, Inc.
7509 West Harwood Avenue
Wauwatosa, Wisconsin 53213

RE: Cultural Resource and Geomorphological Investigation of Navigation Pool 11 of Upper Mississippi River Basin: DACW25-84-0014

Dear Dr. Overstreet:

Thank you for your letter of May 24, 1984 regarding access to information housed in our office. You or your staff are welcome to go through our files, project reports and inventory to the degree necessary for your project. Our office hours are 8-5 Monday through Friday, although the building we are located in closes at 4:00 p.m. each day. When your plans and schedule are firm, let us know and we will make arrangements for you to have a place to go through the records here.

Sincerely,

Mary Ann McBride (for)

Adrian D. Anderson, Executive Director
State Historic Preservation Officer

ADA/MAM/slh

Great Lakes Archaeological Research Center, Inc.
Cultural Resource Management
7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

June 18, 1984

Mr. Charles J. Bareis
Secretary-Treasurer
Illinois Archaeological Survey
109 Davenport Hall
University of Illinois
607 S. Mathews Avenue
Urbana, IL 61801

Dear Chuck:

Thank you for your letter of June 1, 1984. I regret that the information you are able to provide will not be of substantial use for our work on Navigation Pool 11.

Actually, a very small portion of Illinois is incorporated within the Navigation Pool boundaries. In Illinois, the project boundary is parallel to the Mississippi River from East Du-Buque to the Grant County Line (Wisconsin). In the event that we are able to confirm any sites within Illinois, we will execute the appropriate site forms and forward them to your office. As well, we will forward a copy of the final report of investigations for your information.

Sincerely,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos

Great Lakes Archaeological Research Center, Inc.
Cultural Resource Management
7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

June 18, 1984

Dr. Joan E. Freeman
Museums Division
S.H.S.W.
816 State Street
Madison, WI 53706

Dear Joan:

Thank you for your letter of May 31, 1984 regarding our records and archive search for Navigation Pool 11 on the Upper Mississippi River. I appreciate your assistance in coordinating this work with Mr. Fay. As soon as we have completed a report, copies will be forwarded to your office for information and review.

Regarding the matter of archaeological sites reported for Navigation Pool 10, I am still in the process of verifying the new site locations. I do not think we have any duplicates, however, I want to personally check with Al Reed regarding these locations. I hope this delay does not cause you any inconvencience.

Thanks again,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/nw

Great Lakes Archaeological Research Center, Inc.
Cultural Resource Management
7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

June 18, 1984

Dr. Adrian D. Anderson
State Historic Preservation Officer
Iowa State Historical Department
Office of Historic Preservation
Historical Building-East 12th & Grand
Des Moines, IA 50319

Dear Dr. Anderson:

Thank you for your letter of June 12, 1984 regarding the Navigation Pool 11 project. Your quick response to our earlier communication and assistance in coordinating the records and archives search is much appreciated.

We will make certain to keep you informed regarding the progress of the fieldwork and perhaps you will be able to provide us with some input regarding potentially significant sites that are currently being destroyed by erosion.

Best regards,

David F. Overstreet

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos

Great Lakes Archaeological Research Center, Inc.

Cultural Resource Management

7509 WEST HARWOOD AVENUE
WAUWATOSA, WISCONSIN 53213
(414) 259-6020

June 18, 1984

Dr. Duane C. Anderson
Office of the State Archaeologist
Eastlawn
University of Iowa
Iowa City, IA 52242

Dear Duane:

Thank you for your letter of June 12, 1984, regarding the Navigation Pool 11 project. I appreciate your prompt response to our earlier communication and your assistance in coordinating the records and archives search. I still have some blank site forms from an earlier project on the river (Pool 10), however, I will have Mr. Fay check with Ms. Zieglowsky regarding execution of new site forms and assignment of numbers.

We will make certain to keep you informed regarding the progress of the fieldwork and perhaps you will be able to provide us with some input regarding potentially significant sites that are currently being destroyed by erosion.

Best regards,

David F. Overstreet, Ph.D.
Principal Investigator

DFO/hos

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61201

REPLY TO
ATTENTION OF:
Planning Division

Dr. David F. Overstreet
Great Lakes Archaeological Research Center
7509 West Harwood Avenue
Wauwatosa, Wisconsin 53213

Dear Dr. Overstreet:

Enclosed is the information you requested concerning remote sensing applications for your work under contract DACW25-84-C-0025. We hope that these articles and guidelines will be of help in your effort to organize data from Mississippi River Pool 11.

If you have any questions, please call Mr. Charles Smith at 309/788-6361, Ext. 6349, or write to the following address:

District Engineer
U.S. Army Engineer District, Rock Island
ATTN: Planning Division
Clock Tower Building
Rock Island, Illinois 61201

Sincerely,

for Arthur J. Klingerman
Chief, Planning Division

Enclosures

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61201

REPLY TO
ATTENTION OF:
Planning Division

19 JUN 1984

Dr. David F. Overstreet
Great Lakes Archaeological Research Center
7509 Harwood Avenue
Wauwatosa, Wisconsin 53213

Dear Dr. Overstreet:

This is in reference to the telephone conversation on May 30, 1984, with our staff archeologist, Mr. Charles Smith, concerning the Section 107 Commercial Harbor Study in Dubuque County, Iowa, under Contract DACW25-84-C-0025.

We appreciate the information you provided on cultural resources for the project area. We will require a letter report on the results for our files and for use in evaluating the project. Please submit this report within 30 calendar days.

If you have any questions, please call Mr. Charles Smith, at 309/788-6361, Ext. 6349, or write to the following address:

District Engineer
U.S. Army Engineer District, Rock Island
ATTN: Planning Division
Clock Tower Building
Rock Island, Illinois 61201

Sincerely,

Arthur J. Klingerman
Chief, Planning Division

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61201

REPLY TO ATTENTION OF:

NCRSP

'84 JUL 24

SUBJECT: Contract No. DACW25-84-C-0025, Cultural Resource Investigation, Pool 11, Mississippi River, Iowa, Illinois & Wisconsin

Mr. R. J. Fleischman
Chief, reports & Services Branch, Planning Division
Rock Island District Office

Effective 25 July 1984 your appointment as Authorized Representative of the Contracting Officer on the subject contract is terminated without prejudice.

Bonnie R. Shadden

BONNIE R. SHADDEN
Acting Chief, Procurement & Supply Division
Contracting Officer

Copy Furnished:
Great Lakes Archaeological Research Center, Inc.
7509 Harwood Avenue
Wauwatosa, Wisconsin 53213

- o 0 o -

NAME & TITLE S.F.O. DATE 7/27/84

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61201

REPLY TO ATTENTION OF:

'84 JUL 24

NCRSP

SUBJECT: Contract No. DACW25-84-C-0025, Cultural Resource Investigation, Pool 11, Mississippi River, Iowa, Illinois & Wisconsin

Mr. J. Paul VanHoorebeke
A-E and Professional Services Contract Coordinator
Planning Division, Rock Island District Office

Under authority of ECI 1-406.50 and APP 1-406, you are hereby designated as authorized representative of the Contracting Officer for the subject contract with authority to take any actions under the contract which may lawfully be taken by the Contracting Officer, with the following exceptions:

You are not authorized to issue change orders, contract modifications, or supplements or to direct any performance requiring contractual modification or adjustment. Also, you are not authorized to redelegate any authority granted herein.

Bonnie R. Shadden

BONNIE R. SHADDEN
Acting Chief, Procurement & Supply Division
Contracting Officer

Copy Furnished:
Great Lakes Archaeological Research Center, Inc.
7509 Harwood Avenue
Wauwatosa, Wisconsin 53213

- o 0 o -

NAME & TITLE J.P.V. DATE 7/27/84

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT CORPS OF ENGINEERS
CLOCK TOWER BUILDING P O BOX 2004
ROCK ISLAND ILLINOIS 61204 2004

REPLY TO
ATTENTION OF
Planning Division 14 JAN 1985

SEE REPORT DISTRIBUTION

Enclosed is a draft report entitled Archaeological Investigations in Navigation Pool 11, Upper Mississippi River Basin (3 vols.), prepared for us by staff from the Great Lakes Archaeological Research Center (GLARC) under contract DACW25-84-C-0025.

This report describes the results of archaeological and geomorphological investigations of sites and key depositional contexts on lands under the jurisdiction of the Rock Island District, Corps of Engineers. The results of the investigation improve our understanding of regional prehistory and history, contribute the emerging data base for interpreting Holocence fluvial history for the river, and provide detailed information required for management activities.

As for the pool 10 survey done by GLARC for the St. Paul District, evidence for extensive utilization of the flood plain beginning by the Middle Archaic suggests that major concepts of Midwestern prehistory must be reexamined.

We request your technical review of the draft, as well as your opinion as to whether the Contractor fulfilled the requirements of the Scope of Work. The District and GLARC staff would be most interested in your assessment of the methods used for this investigation and the interpretation of the results.

If you have any comments that might help the District plan additional investigations in the Upper Mississippi River Basin, please do not hesitate to include them in your response. If you are unable to provide review comments within 45 days, please return the draft so that the copy may be sent to another reviewer. Final report copies will be available in May 1985.

Questions may be directed to Mr. Charles Smith at 309/788-6361, Ext. 349. Your comments may be sent to the following address:

District Engineer
U.S. Army Engineer District, Rock Island
ATTN: Planning Division
Clock Tower Building - P.O. Box 2004
Rock Island, Illinois 61204-2004

Sincerely,

James T. Schnerre
Acting Chief, Planning Division

Enclosures

Archaeological Investigations in Navigation Pool 11
Upper Mississippi River Basin

Distribution List

Distribution List - External	Copies
Mr. Richard W. Dexter Chief, Compliance Section State Historical Society of Wisconsin 816 State Street Madison, Wisconsin 53706	1
Dr. Kay Simpson Division of Historic Preservation Historical Building East 12th and Grand Avenue Des Moines, Iowa 50319	1
Director Midwest National Technical Center Soil Conservation Service 100 Centennial Mall, North Federal Building, Room 345 Lincoln, Nebraska 68508	1
Dr. Duane Anderson Office of State Archaeologist of Iowa Eastlawn Building University of Iowa Iowa City, Iowa 52242	1
Mr. Lawrence Conrad Archeological Research Lab Western Illinois University Macomb, Illinois 61455	1
Dr. David F. Overstreet Great Lakes Archaeological Research Center 7509 West Harwood Avenue Wauwatosa, Wisconsin 53213	wo/enclosures

Project Review Comments

Type:
Concept: ☐
Final: ☒
Other: _____ ☐

Date: 1 Feb 85

Project: ~~Archaeological Investigations~~
Location: Pool 11, UMRB

Reviewer:
Name: Charlene Carmack
Organization: USAED, Rock Island

Comment Number	Drawing/Page/ Number	Space	Comment	Action
1	iii-vi		It appears that the text could be organized into three or four subdivisions, each with major sections, subsections, etc. This might help readers to break down the mass of information into smaller, more understandable parts.	
2	36		In reducing the Brown maps from a 1:2000 scale to a 1:24000 scale was the 1' contour interval retained? If so, would using a 2' or 5' contour interval have sacrificed more detail than was gained by having contour lines spaced so closely that "it was difficult to see features even with a magnification glass"?	
3	46		You might want to consider having a map like this one at the beginning of the sections on "Subsurface Investigations", "Remote Sensing", and "Archaeological Survey", showing sites of these investigations, or perhaps use some kind of coding system on the Page 46 map showing the types of investigations performed at each site.	

NCR Form 44
25 Sep 84

Project Review Comments

Type:
Concept: ☐
Final: ☒
Other: _____ ☐

Date: 1 Feb 85

Project: Archaeological Investigation

Location: Pool 11, UMRB

Reviewer:

Name: Charlene Carmack

Organization: USAED, Rock Island

Comment Number	Drawing/Page/ Number	Space	Comment	Action
4	195		This reinforces your hypothesis that cultural sites from the Paleoindian and early Archaic periods should be present in the Pool 11 floodplain (albeit at considerable depths). It seems likely that the arid conditions prevalent at the time would have tended to concentrate human activity near what may have been the only available source of water and food.	
5			I didn't see much mention of evaluation of cultural resources in relation to erosion problems, aside from an occasional comment in the sections covering site investigations. You might want to add a paragraph on this subject to the summary.	

NCR Form 44
25 Sep 84

Project Review Comments

Type:
Concept: ☐
Final: ☐
Other: _____ ☐

Date: 23 Jan 85

Project: Archeological Investigations
Location: Pool 11, UMRB

Reviewer:
Name: A. Bruzewicz
Organization: USACE - NCR

Comment Number	Drawing/Page/ Number	Space	Comment	Action
1	20-1		This whole point of bias and inaccessibility can't be over stated in the evolving analysis of the Upper Mississippi.	
2	21		You might again want to note those whose view-point is biased by ignoring these points, in which case you could drop the "in my opinion" and take advantage of a condescending contra.	
3	25		The first 2 sentences are essentially contradictory.	
4	32		At the question mark - I don't understand the intent.	
5	34		Trade names are used here and elsewhere. After the first occurrence there should be the standard disclaimer about trade names being for the convenience of the reader and not indicating endorsement of the product by the Corps of Engineers.	
6	36f		While bluff lines are good indicators over this time scale, the islands can shift significantly.	
7	36h		You might state what made the errors acceptable. Given the problems caused by the scale differences, a criterion would be helpful.	
8	37		Given the problems with photo copying such maps, you might use the early map, the quad, and a page showing areas of accretion and erosion.	

Project Review Comments

Type: Concept: ☐ Final: ☐ Other: ☐

Date: 23 Jan 85

Project: Archeolgoical Investigations

Location: Pool 11, UMRB

Reviewer:

Name: A. Bruzewicz

Organization: USACE - NCR

Comment Number	Drawing/Page/ Number	Space	Comment	Action
9	43		For soils there should be some sedimentology.	
10	47		Compaction of A1s, while unavoidable with the probe, can be unbiased by the (usually) minor digging required to get to their base.	
11	49		Use of Remote Sensing is somewhat misleading here since the air photo intepretation was also Remote Sensing. Ground Penetration Radar Investigation or something similar would be more accurate.	
12	52,53 58		The references to nanoseconds for the radar return are probably unnecessary here since the graphs are already scaled in centimeters, not nanoseconds.	
13	58		The abbreviation GPR should appear after the first use of the term.	
14	64		I don't see the cause and effect in the marked sentence.	
15	65		Descriptions like silty sand should be backed with some form of tabular data. See my comments on the Grant River Public Use Area draft.	
16	68		d.b.h. should probably be spelled out here.	
17	68		The method used to indicate dates should be consistent throughout the document.	
18	75		Title of figure and #	
19	77-8		If Chicago, Milwaukee, Paul & Pacific is correct on p 77 the map on p 78 needs correction.	

Project Review Comments

Type: Concept: ☐ Final: ☐ Other: ☐

Date: 23 Jan 85

Project: Archeological Investigations

Location: Pool 11, UMRB

Reviewer:

Name: A. Bruzewicz

Organization: USACE - NCR

Comment Number	Drawing/Page/ Number	Space	Comment	Action
20	81		Is 3 or 4 mm the maximum thickness? If not, what is the range?	
21	84		What are the map code numbers referring to?	
22	100		Something is missing in the first complete paragraph.	
23	general		Could probe locations (both those rejected and complete profile) be noted on your maps?	
24	109		6 & 7 lines up from the bottom, the intent is unclear.	
25	140		Do you really have the hinges?	
25	140		It would be interesting to try to date some of this material. It should be suitable for C14.	
26	144		The use of the phrase "appreciable antiquity" for a late 19th century find doesn't seem right given the extent of the archeological record in this area.	
27	186		Does the reasoning behind post-Archaic assemblages need elucidation?	
28	195		*A zonal flow would be westerly. I think the key difference is Canadian vs. warmer Pacific air. Both would be dry.	
29	197		*There is a certain amount of circularity in the causality involved here, but in general climate -→ flora -→ landforms.	
30	197		The point at the end of the page is crucial. It is only by looking for responses given climatic change, that the answers may be found.	

Project Review Comments

Type:
Concept: ☐
Final: ☐
Other: _____ ☐

Date: 23 Jan 85

Project: Archeological Investigations
Location: Pool 11, UMRB

Reviewer:
Name: A. Bruzewicz
Organization: USACE - NCR

Comment Number	Drawing/Page/ Number	Space	Comment	Action
			It is likely that stratigraphic control may never	
			be good enough to give solid answers.	
31	262		*There are 2 problems here.	
32	262		**The siltation of the Galena R. might bear	
			comment here.	
33	262		The Galena is called the Fever when mentioned	
			earlier (p 235).	
34	264		Are these context (presumably archeological)	
			or are you just considering the alluvium?	
35	264		Don't they generally cover anv earlier	
			alluvial fans present	
36	278		*I like the interpretation	
37	282		The two statements seem to contradict each other.	
38	283		It would be interesting to get at the relative	
			proportion of aggradation due to an increase	
			in the Mississippi base level following	
			impondment and that due to historical (? and	
			prehistorical) practices. I suspect historical	
			practices were the overwhelmingly important	
			cause.	
39	284		*How sure is Jeff about this hypothesis?	
			Could you just be looking at two different	
			flood plain environments?	
40	289		The proposed transect should be marked on the	
			map.	
41			There is a tendency toward inconsistency in	
			usage including abbreviations	

Project Review Comments

Type: Concept: ☐ Final: ☐ Other: ☐

Date: 23 Jan 85

Project: Archeological Investigations

Location: Pool 11, UMRB

Reviewer:

Name: A. Bruzewicz

Organization: USACE - NCR

Comment Number	Drawing/Page/ Number	Space	Comment	Action
41		a.	1850s - 1850's	
		b.	No. no. & #	
		c.	' and feet (the notation should be avoided)	
		d.	m. and meters	
		e.	Jan. 13, 1924 and 1/12/24	
		f.	upper and lower case Late, Middle, and Early	
			should be capitalized everywhere. I tend not	
			to capitalize Valley as part of Upper	
			Mississippi.	
		g.	Use of commas after short introductory	
			prepositional phrases.	
42			The great shard/sherd controversy. As a	
			non archeologist (a word for which I also	
			prefer the alternative spelling), following the	
			literature I had accepted sherd as referring	
			to aboriginal pottery and shard for broken	
			pieces of glass and china. According to my	
			dictionary each is acceptable for both sets	
			of use.	
43			The shell middens - historical and prehistorical	
			should allow carbon - 14 dating. Has any	
			been done?	
44			The soil profile charts should have textural	
			and color designations within the zones not	
			on the boundaries.	
45			For sediments I would like to see more data	
			as I noted in my comments on the draft of the	

Project Review Comments

Type:
Concept: ☐
Final: ☐
Other: _____ ☐

Date: 23 Jan 85

Project: Archeological Investigations
Location: Pool 11, UMRB

Reviewer:
Name: A. Bruzewicz
Organization: USACE - NCR

Comment Number	Drawing/Page/ Number	Space	Comment	Action
			Grant River report.	
			Major -	
46			This draft represents an almost overwhelmingly	
			large data set. and I think the job has been	
			carried off very well. I think that the point	
			about bias in the record and the need to	
			examine flood plain sites are exceedingly	
			important although I see the probability of	
			successful investigation of enough to enable	
			serious modeling as almost nil.	
			I like the geomorphic model, although I	
			disagree with some of the conclusions as noted	
			above.	
			Like you, I would like to see funding for	
			additional work so that those questions that	
			can be addressed may be answered with more	
			confidence than is now possible.	

Project Review Comments

Type:
Concept: ☐
Final: ☒
Other: _____ ☐

Date: 1-14-85

Project: Archaeological Investigations

Location: Pool 11, UMRB

Reviewer:

Name: C. Smith

Organization: USAED Rock Island

Comment Number	Drawing/Page/ Number	Space	Comment	Action
1	ii		Add a paragraph which summarizes the results of your investigation and related recommendations.	
2	24		The point about the unreliability of compliance inventories in areas where surficial deposits are extensive is an important one. This point could be made in the Management Summary and tied to a solution. The discussion at the bottom of page 25 is related in terms of problems with predictive models and statistical sampling. The Nine-Foot Navigation Project has removed a major and as yet undefined (for sampling purposes) portion of the cultural/geomorphological universe. This bias cannot be rectified, nor can the bias derived from our lack of a precise understanding of non-inundated lands. Add to these difficulties biases due to erosional loss and modern land use and a management nightmare is revealed.	
3	34		Your experience with map rectification should prove useful for future investigators utilizing Rock Island District map sources. This kind of procedure is critical for understanding landform evaluation and for developing cost efficient fieldwork strategies. This discussion, in the opinion of this reviewer,	

Project Review Comments

Type: Concept: ☐ Final: ☒ Other: ☐

Date: 1-14-85

Project: Archaeological Investigations

Location: Pool 11, UMRB

Reviewer:

Name: C. Smith

Organization: USAED Rock Island

Comment Number	Drawing/Page/ Number	Space	Comment	Action
			should be left in the narrative. Note that copies of your mylars can be obtained from NCR.	
4	129		Consider the addition of a summary table for the 14 public use areas (name, location, landform, condition, results, recommendation, etc.).	
5	62-129		Note the reference of the figures used to illustrate the 14 public use areas. Scales and north arrows should be added. In some cases, state (IL, WI, IA) designators would be helpful.	
6	Gen.		Can mussel species be identified for any of the shell middens? This information would be helpful to biologists attempting to assess changes in mussel populations during the modern period, as well as establishing button industry preferences.	
7			The historical section is a major plus often absent from archeological reports of this kind. Organizing the section by themes is insightful, and should help researchers and managers begin to order data in ways most appropriate for making management decisions.	
8	261-264		The historical information concerning lead mining is not effectively tied to the opening theme - that is, effects to the landscape and	

Project Review Comments

Type: Concept: ☐ Final: ☒ Other: ☐

Date: 1-14-85

Project: Archaeological Investigations

Location: Pool 11, UMRB

Reviewer:

Name: C. Smith

Organization: USAED Rock Island

Comment Number	Drawing/Page/ Number	Space	Comment	Action
			influences on post-settlement alluvium	
			deposits.	
9	264		Explain why PSA accumulations occur, in varying thicknesses, in lower/higher order tributary valleys. Define what is meant by "usually silty" (line 17) and "coarser and finer textures" (line 18).	
10	264-268		The discussion on varying situations where PSA is found might be improved by the addition of figures which illustrate typical profiles and a geographical map showing where the various deposits might occur. You might consider drafting an idealized map which could include all or most likely situations.	
11	265		What strength hydrochloric acid is used and is there any differentiation for the intensity of effervescence?	

IOWA STATE HISTORICAL DEPARTMENT
OFFICE OF HISTORIC PRESERVATION

February 27, 1985

ADRIAN D. ANDERSON, Executive Director
STATE HISTORIC PRESERVATION OFFICER

Mr. Arthur J. Klingerman
Chief, Planning Division
Rock Island Corps of Engineers
Clock Tower Building
Rock Island, IL 61202

RE: ARCHAEOLOGICAL INVESTIGATIONS, NAVIGATION POOL 11, UPPER MISSISSIPPI RIVER BASIN. VOL. 1-3. DRAFT REPORT

Dear Mr. Klingerman:

I have reviewed the draft report for Phase I investigations in 14 recreation areas along the Upper Mississippi River, and find that the report meets the specifications outlined in the COE scope of work. Dr. Overstreet is to be commended for producing a very readable and professional document that will be an invaluable planning tool for these management areas. Minor stylistic points which need to be clarified in the final document are listed below.

It would be clearer to the reader if the exact survey area (14 recreation areas, 235 acres) were mentioned in the Introduction (p. 1) and a map showing all surveyed areas were part of or followed Figure 1. It also would be useful to have the number of sites found and investigated stated in the Introductory section.

The figures in general need more legends, north arrows and scales. The figures in Investigations at Special Use Areas (pp. 62-129) should show all sites and points mentioned in the text. For example, the text for Special Use Area A-3, A-6 refers to the historic townsite of Sinnippee (map code #68), but Figure 22 does not show the relationship of the site to the survey area. In this same example, the p.84 refers to L & D #10 and Fig. 22 has L & D #11 shown. The text for FIA-122 refers to 13 Ct 218, but the site is not on Fig. 28. While other maps in the document do show site locations, this portion of the report is difficult to read without having information referred to in the text shown in adjacent maps or at least referencing pertinent maps elsewhere in the text.

On page 130 the text states that "Locations of survey investigations are noted in Figures 43-45"; however, Figs. 43-45 are soil profiles. There appear to be missing words on line 1, page 62; line 8, page 100; and line 1, bottom quote ("Unfortunately for east of...), page 204.

I look forward to reading the final document.

Sincerely,

Adrian Anderson, Executive Director
State Historic Preservation Officer

ADA/KS/md

cc: Dr. David Overstreet

Historical Building-East 12th & Grand Des Moines, Iowa 50319 - (515) 281-6825/6826

the study cannot answer every question about all landscape areas of concern to us. However, this was never the goal of the study. Despite this limitation, we are pleased to note that the report can be used for understanding possible impacts to cultural resources; sometimes to specific archeological sites, and other times merely to geomorphological contexts. From the latter, we can make decisions about the need for and magnitude of further field investigations in areas where little is known.

We hereby authorize the production of the final version of the report in accordance with the Scope of Work contained in the contract. Use the comments provided by the reviewers to help clarify the presentation and interpretation of data generated under this contract. Any review comments not attached to this letter are considered delinquent and do not have to be addressed in the final report. Please submit a final bill with the reports.

If you have any questions, please call Mr. Charles Smith at 309/788-6361, Ext. 349. The final reports should be sent to the following address:

District Engineer
U.S. Army Engineer District, Rock Island
ATTN: Planning Division (NCRPD-E)
Clock Tower Building - P.O. Box 2004
Rock Island, Illinois 61204-2004

Sincerely,

J. Paul VanHoorebeke
Contracting Officer's Representative

Enclosures

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING – P.O. BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO
ATTENTION OF

March 4, 1985

Planning Division

Dr. David F. Overstreet
Great Lakes Archaeological Research Center
7509 West Harwood Avenue
Wauwatosa, Wisconsin 53213

Dear Dr. Overstreet:

We have completed our review of the draft report entitled Archaeological Investigations in Navigation Pool 11, Upper Mississippi River Basin (3 vols.) prepared for us under contract DACW25-84-C-0025. By letter dated January 14, 1985, copies of the draft report were distributed for external review. Comments have been received from reviewers as marked on the enclosed distribution list. Copies of the comments are enclosed for your consideration and for inclusion in the relevant correspondence appendix to the report. Comments made by three reviewers from the Rock Island District are also enclosed. Editorial comments are marked on the enclosed copy of the draft report.

The major overall comment noted by the reviewers is that you compiled an overwhelming amount of data during the course of the project. This makes it difficult for readers to follow the discussion and interpretation sections in volume 1. All of the reviewers were at a loss in terms of suggesting ways to ameliorate this situation, except for several possible solutions marked in the enclosed copy of the draft report.

More important is the commendable presentation of a badly needed synthesis discussion of prehistoric and historic resources in the pool 11 area. The fieldwork results further clarify the nature and extent of archeological deposits under Federal jurisdiction, and highlight the many logistical problems facing cultural resource managers working in alluvial settings such as the upper Mississippi River basin.

We have used your draft, particularly volume 2 (site sheets), for several project evaluations for permitting or initial appraisals in the past month. The utility of your report, as a management tool, has been demonstrated by the test examples. As you are aware,

APPENDIX E

Crew Lists By Task

Crew Lists-by Task

Archaeological Investigations, Pool 11

Task	Individual	Month	Man-hours
P.I.,Proj. Mgr., report preparation	David F. Overstreet,	May 1984	80 man-hours
		Jun 1984	64 man-hours
		Jul 1984	12 man-hours
		Aug 1984	100 man-hours
		Oct 1984	46 man-hours
		Nov 1984	34 man-hours
		Dec 1984	20 man-hours
Cartog. Interp.	Ben Richasen	May 1984	88 man-hours
		Jun 1984	96 man-hours
		Jul 1984	28 man-hours
Hist. Research	Robert P. Fay	May 1984	80 man-hours
		Jun 1984	120 man-hours
		Jul 1984	120 man-hours
		Sep 1984	80 man-hours
Fld. Supervisor	James Clark Jr.	May 1984	120 man-hours
		Jun 1984	80 man-hours
		Jul 1984	80 man-hours
		Aug 1984	168 man-hours
		Sep 1984	160 man-hours
		Oct 1984	80 man-hours
		Nov 1984	32 man-hours
Fld/Lab Crew	Paul Lurenz Jr.	May 1984	38 man-hours
		Jun 1984	40 man-hours
	James G. Stark	May 1984	38 man-hours
		Jun 1984	40 man-hours
	Nikki Wackman	Jun 1984	24 man-hours
	William Gilmore	Aug 1984	77 man-hours
	Martha Tappen	Aug 1984	77 man-hours
	Paul Koeppler	Aug 1984	77 man-hours
Geomorph./ report prep.	Jeff Anderson	Jun 1984	63 man-hours
		Jul 1984	38 man-hours
		Aug 1984	133 man-hours
		Sep 1984	140 man-hours
		Nov 1984	120 man-hours
		Dec 1984	100 man-hours